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UNIVERSITY OF ALBERTA

MEASURES OF PERFORMANCE: THE IMPACT OF VALUES, BELIEFS AND INTERESTS

BY

ABHOY K. OJHA

A THESIS
SUBMITTED TO THE FACULTY OF GRADUATE STUDIES AND RESEARCH IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF DOCTOR OF PHILOSOPHY

IN

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ABSTRACT

Organizations usually consist of multiple internal constituencies and are dependent on numerous external constituencies. Each constituency has its own set of values, beliefs and interests. Since performance measures reflect the beliefs and values of those who construct them, constituencies that hold contradictory beliefs or values are likely to employ conflicting criteria to evaluate an organization. This dissertation uses insights from institutional theory to examine the complex relationship among external constraints, organizational beliefs and values, and measures of organizational performance.

The empirical work for this study was conducted in hospitals in Edmonton. The health care system in Alberta, Canada is undergoing a period of significant change. The provincial government, which is a strategic external constituency for hospitals in the province, has in its recent policy decisions indicated a desire to 'reorganize' and better 'manage' health care in the province. The study examines the impact of these changes on measures of performance used within different types of hospitals.

The findings in this study suggest that, as a result of the increase in administrative pressures exerted by the government, there have been changes in measures of performance used within hospitals. There has been an increase in the use of economic criteria, that is measures of performance underpinned by administrative beliefs and values, while evaluating hospital performance. However, contrary to expectations, the change is positively related to the size of the hospital. It was expected that the changes in larger hospitals would be less than in smaller hospitals because of their power to oppose government initiatives. But, with the government committed to implementing changes, even large hospitals have had to comply with the new government policies. With their ability

to allocate larger amounts of resources--qualified personnel, computer facilities and funds for assistance from consultants--to understand and respond to changes, the larger hospitals have been able to make more changes than smaller hospitals.

A significant finding of this study, which was not predicted based on the conceptual framework used for the study, was the increased focus on medical evaluation of hospital performance. The external pressures to improve economic performance of hospitals, which predictably has led to greater emphasis on economic criteria, has also led to a greater emphasis on examining the medical performance of hospital procedures and treatments. In order to make best use of the decreasing allocations to hospitals, the hospitals are reexamining the medical effectiveness of various treatment practices.

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TABLE OF CONTENTS

CHAPTER		PAGE
	ABSTRACT	
	ACKNOWLEDGMENT	
	LIST OF TABLES	
	LIST OF FIGURES	
1.	INTRODUCTION	1
2.	BELIEF SYSTEMS AND MEASURES OF ORGANIZATIONAL PERFORMANCE	6
3.	A HISTORICAL PERSPECTIVE ON RECENT CHANGES IN THE HEALTH CARE SYSTEM IN ALBERTA	43
4.	BELIEF SYSTEMS IN HEALTH CARE AND MEASURES OF HOSPITAL PERFORMANCE	55
5.	RESEARCH METHODOLOGY	85
6.	VALIDATION OF FRAMEWORK USED IN THE STUDY	105
7.	FINDINGS AND DISCUSSION	140
8.	CONCLUSIONS AND IMPLICATIONS	190
	REFERENCES	218
APPENDIX 1:	DESCRIPTION OF THE HOSPITAL PERFORMANCE INDEX (HPI)	231
APPENDIX 2:	LIST OF PERSONS INTERVIEWED	232

APPENDIX 3:	SAMPLE INTERVIEW GUIDE	235
APPENDIX 4:	LIST OF LETTERS/DOCUMENTS/RECORDS REVIEWED	236
APPENDIX 5:	LIST OF CODES USED IN THE ANALYSIS OF INTERVIEW DATA	239
APPENDIX 6:	MISSION STATEMENT OF HOSPITAL A	241
APPENDIX 7:	STORY OF LOGO OF HOSPITAL B	242
APPENDIX 8:	INPATIENT CLINICAL FUNDING/CODING DATA SHEET	243
APPENDIX 9:	LIST OF DATA ELEMENTS CODED FROM DISCHARGE CHARTS IN HOSPITAL A	246

LIST OF TABLES

TABLE	DESCRIPTION	PAGE
2.1	PATTERNS OF ORGANIZATIONAL ACTION	20
2.2	ENVIRONMENTAL CONDITIONS WITH ORGANIZATIONAL TYPES LIKELY TO BE ASSOCIATED WITH EACH CONDITION	31
3.1	STAGES IN THE DEVELOPMENT OF THE HEALTH CARE SYSTEM IN ALBERTA (AND CANADA)	45
4.1	A COMPARISON OF THE CHARACTERISTICS OF THE MEDICAL INSTITUTION AND THE ADMINISTRATIVE INSTITUTION	69
7.1	COMPARISON OF EXTERNAL RESPONSES BY HOSPITAL A AND HOSPITAL B (INCLUDING SOURCE OF EVIDENCE)	155
7.2	RESEARCH AND STATISTICAL PROJECTS CONDUCTED PER MONTH BY THE MEDICAL RECORDS DEPARTMENT AT HOSPITAL A, 1987-1992.	166
7.3	COMPARISON OF HOSPITAL PERFORMANCE INDICES OF HOSPITAL A AND HOSPITAL B, 1987/87 - 1991/92	173

LIST OF FIGURES

FIGURE	DESCRIPTION	PAGE
2.1	RELATIONSHIP BETWEEN TYPES OF PERFORMANCE MEASURES AND NATURE OF EXTERNAL PRESSURES	33
2.2	INTERACTION AMONG INTERNAL AND EXTERNAL BELIEF SYSTEMS AND MEASURES OF PERFORMANCE	35
4.1	INTERACTION AMONG INTERNAL AND EXTERNAL BELIEF SYSTEMS OF A HOSPITAL AND MEASURES OF HOSPITAL PERFORMANCE	78

CHAPTER ONE

INTRODUCTION

The idea of organizational performance[1] is central to research on organizations (Cameron, 1986; Goodman & Pennings, 1977; Quinn & Rohrbaugh, 1983). Most studies of organizations, either explicitly or implicitly, include some notion of organizational performance in their analysis. However, the literature on organizational performance is fragmented and contradictory (Cameron, 1986; Quinn & Rohrbaugh, 1983). There have been several attempts (e.g., Goodman & Pennings, 1977; Cameron & Whetten, 1983) to resolve the inconsistency and conflict by drawing attention to processes by which measures of performance are developed. This study is an attempt to contribute to the effort to achieve cohesion in the understanding of organizational performance by empirically examining the processes through which measures of performance are created and/or adopted.

The organizational performance literature suggests that these processes involve bargaining among internal and external constituencies of an organization (Cameron, 1981; Pennings & Goodman, 1977; Scott, 1977; Quinn & Rohrbaugh, 1983; Zammuto, 1982). Each constituency consists of a "cluster of members that share distinct values and interests" (Pennings & Goodman, 1977: 148). Every constituency evaluates an organization from its own idiosyncratic perspective (Zammuto, 1982), and the measures of performance that become commonly accepted are the outcomes of a process of negotiation among the diverse constituencies (Cameron, 1981; Pennings & Goodman, 1977; Scott, 1977; Quinn & Rohrbaugh, 1983; Zammuto, 1982).

---

[1]The terms organizational effectiveness and organizational performance have been used interchangeably in the literature. In this study the term organizational performance is used except when the term organizational effectiveness appears in a direct quote.

Institutional theory has been extensively used to examine and explain phenomena in diverse organizations and environments. There are significant variations among commonly accepted arguments of institutional theory, but they all rely on similar underlying assumptions (Scott, 1987; Zucker, 1987). Recent forms of the theory have been applied to understand institutional processes (Covaleski & Dirsmith, 1988; Dimaggio & Powell, 1983; Meyer & Rowan, 1977), organizational structures and change processes (Hinings & Greenwood, 1988a; Tolbert & Zucker, 1983), organizational practices (D'Aunno, Sutton, & Price, 1991), organizational mortality (Baum & Oliver, 1991), and organizational strategies (Oliver, 1991).

Central to the application of institutional theory to organizations are notions of organizational performance. According to the theory, survival, for many organizations, depends on the legitimacy they acquire from conforming to widely held conceptualizations of performance, which may be different from the requirements of economic efficiency (Baum & Oliver, 1991; D'Aunno, Sutton & Price, 1991; Dowling & Pfeffer, 1975; Elsbach & Sutton, 1992; Meyer & Rowan, 1977; Scott, 1987). However, there is a lack of organizational research examining the processes by which taken for granted measures of performance are 'created'.

This study integrates the organizational effectiveness and institutional theory literature to examine and understand the processes within and outside an organization that lead to the creation and/or adoption of certain measures of performance. Using insights from institutional theory to conceptualize organizational processes as interactions among belief systems of diverse constituencies, the study examines the impact of changes in the values and beliefs of external constituencies on measures of performance used within organizations. Since processes of bargaining and negotiation among the constituencies are

inextricably linked to issues of power and politics, the study also tries to understand the political context within which these processes occur.

The empirical work for this study was conducted in hospitals in Alberta, Canada. Since 1988, there has been a significant shift in institutional pressures on hospitals in the province. These pressures are underpinned by a belief system that is different from that which was dominant in the health care sector since the late 1940s. The shift is manifested in changes in government policy, the first phase of which was implemented in 1990. The situation provided the setting for a natural experiment to examine the processes through which new measures of performance are either created or adopted from other sectors of the environment, and old measures are dropped or become unimportant. The case study method was used to conduct a detailed analysis of processes within two dissimilar hospitals to understand how similar institutional pressures can have divergent influences based on the power of an organization in its environment and the balance of power among constituencies within it.

The basic components of the theoretical framework used in the study are described in Chapter 2. First, a review of the organizational effectiveness literature suggests that measures of performance reflect the values, beliefs, and interests of those who develop and/or use them. The next section develops the notion that measures of performance are underpinned by the belief systems of dominant constituencies within organizations.

The following section examines the impact of external influences on measures of performance used in organizations. First, it explicates the difference between technical and institutional pressures faced by organizations. The linkage between belief systems of external constituencies and institutional pressures experienced by organizations is established. Finally, a general framework that

describes the interaction among internal and external constituencies of an organization, and their influence on measures of performance is presented.

Chapter 3 provides a historical perspective of the context within which the study was conducted. It provides a brief history of the development of the health care system in Canada. The purpose of the description in this chapter is to present evidence of the links between societal values and beliefs, and government policies towards health, that are the main source of institutional pressures experienced by health care organizations in Alberta, Canada. It also describes how societal processes and government policies have led to changes in the balance of power within organizations, and how that has affected the goals pursued and measures of performance used.

Chapter 4 applies the framework developed in Chapter 2 to the context of health care as described in Chapter 3. The first section of the chapter explains the difference between a typical organization and a hospital, and how this difference allows the external influences on a hospital to be understood as emerging only from institutional environments. The next section describes the two institutions, each underpinned by a different belief system, that are dominant in the health care arena in Canada. The following section demonstrates how measures of performance differ based on which of the two belief systems are utilized by persons/groups who develop and or use them. It then explains how different constituencies within hospitals espouse different beliefs and as a result stress different aspects of hospital performance. The last section presents an integrated framework that illustrates the interaction among belief systems, institutions, hospitals and measures of performance. Finally, seven propositions that indicate the expected processes as a result of changes in government policy are presented.

Chapter 5 describes the research methodology used to conduct the study. It explains the choice of case research method over other possible options. It then

describes the research design in terms of number and type of sites selected, data sources available and data collection methods utilized. The last section describes the data analysis procedures that were adopted.

Chapter 6 is an attempt to verify the appropriateness of the framework applied in the study. The chapter presents evidence to suggest that the initial framework presented in Chapter 4, although developed largely on American literature, was appropriate for the study. It tries to establish that some of the assumptions made in the process of developing prior propositions were valid in the context in which the study was conducted.

The next chapter, Chapter 7, provides the research findings and discussions of those findings. The first section provides the evidence, or lack of it, for the seven propositions that were examined. The last section presents findings that were not anticipated during the research design stage, but emerged from the data acquired and are of significant importance.

Finally, Chapter 8 evaluates the strengths and limitations of the study. It also presents the conclusions that can be derived from this study and the implications of these conclusions for research and practice.

CHAPTER TWO

BELIEF SYSTEMS AND MEASURES OF ORGANIZATIONAL PERFORMANCE

The purpose of this chapter is to describe the basic components of the theoretical framework used in the study. First, it provides a review of the organizational effectiveness literature to establish the relationship between values, beliefs and interests, and measures of performance. It suggests that measures of organizational performance are not based on any absolute criteria, but reflect the values, beliefs and interests of those who develop and/or use them.

It then develops an understanding of how the internal constituencies of an organization interact as measures of performance are produced. It introduces concepts of power and politics to explain the processes through which differences in values and beliefs among internal constituencies are resolved. It also explicates how the composition of internal constituencies infuences organizational processes and measures of performance.

The next section of the chapter describes how institutional theory has differentiated between technical and institutional pressures faced by organizations, and explains why all external influences for this study have been conceptualized as institutional pressures. It also suggests that institutional pressures can be understood as being underpinned by values, beliefs and interests of the external constituencies of an organization. These external pressures have an impact on the measures of performance that are used within organizations.

Finally, a general framework that describes the interaction among internal and external constituencies of an organization is presented. A discussion of an organization's external and internal responses to changes in external pressures is then presented. The discussion focuses on the impact of context, both within and

outside an organization, that influence choice of responses, which in turn influence measures of performance within the organization.

2.1. Measures of Organizational Performance

The idea of organizational performance is central to the literature on organizations (Cameron, 1986; Goodman & Pennings, 1977; Quinn & Rohrbaugh, 1983). Most studies of organization, either explicitly or implicitly, include some notion of organizational performance in their analysis. Despite the importance of the concept in the study of organizations, the literature on organizational performance is fragmented and contradictory (Cameron, 1986; Quinn & Rohrbaugh, 1983). There is a lack of agreement over the definitions of organizational performance among researchers and practitioners (Campbell, 1977) and in some instances definitions are conflicting (Cameron, 1986).

Organizational performance is often understood, especially in the prescriptive literature, as a measure of the degree to which an organization achieves its goals. However, there are several reasons why this may be seen as an incomplete and very limited conceptualization of organizational performance. Given that a typical organization pursues multiple goals which are not easily comparable and may change, agreement upon a definition of organizational performance based on goals has not been available in the literature. Further, several reviews (e.g., Campbell, 1977; Cameron, 1986; Quinn & Rohrbaugh, 1983) of the literature have concluded that, the term organizational performance is used in such conceptually diverse ways[1] that a consensus among them is difficult. Some go even further to suggest that even if one were to achieve agreement at a conceptual level, the term organizational performance is so abstract and ambiguous that it can be operationalized by diverse equally valid definitions making a precise explicit definition not only difficult but impossible (Campbell, 1977; Quinn & Rohrbaugh, 1983; Cameron, 1986; Zammuto, 1982).

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[1] Some of the conceptual differences are discussed later in the chapter.

2.1.1. Consensus among conceptions of Organizational Performance

There have been several attempts (e.g., Scott, 1977; Seashore, 1983; Quinn & Rohrbaugh, 1983; Cameron, 1986) to resolve the confusion in the literature. Each attempt has been driven by the desire to identify broad themes based on levels of agreement and disagreement amongst the numerous conceptualizations of performance in order to provide a framework that integrates them. While there is some variation and disagreement among the several frameworks presented, consensus on certain issues has emerged in the recent attempts at integration (Cameron, 1986). Three such issues, that are relevant to this study, are discussed below.

1. *There is no absolute measure of organizational performance.* Campbell (1977) identified 30 different measures of organizational effectiveness in the literature which could be related to the term, but could not determine a correct way to choose one measure over any other. He concluded that organizational performance

> "is not a truth that is buried somewhere waiting to be discovered if only our concepts and data collection methods were good enough" (Campbell, 1977: 15).

He argued that organizational performance should be thought of as an underlying measure that has no necessary and sufficient operational definition, but nonetheless provides a way to evaluate organizations.

Quinn & Rohrbaugh (1983) suggested that organizational performance is not a concept but a construct. According to them,

> "(a) concept is an abstraction from observed events, the characteristics of which are either directly observable or easily measured. Some concepts, however, cannot be so easily related to the phenomena they are intended to represent. They are inferences,

> at a higher level of abstraction from concrete events, and their meaning cannot easily be conveyed by pointing to specific occurrences. Such higher-level abstractions are sometimes identified as constructs, since they are measured from concepts at a lower level of abstraction" (Quinn & Rohrbaugh, 1983: 364).

They argue that the term organizational performance is so abstract that, even if there is a consensus at an abstract level, complete agreement among different operationalizations of the term is impossible.

Definitions of performance are underpinned by conceptualizations of organizational activity. Campbell (1977) in his review of the literature suggested that there are two general models--the Goal Model and the Systems Model--that have been used to conceptualize organizations and underpin all measures of effectiveness. In terms of the Goal Model, a typical organization is seen as a rational goal seeking entity. Hence, measures of performance are constructed such that they evaluate the extent to which certain organizational goals are met. For example, a hospital may be seen as an organization that has a goal of restoring patients to good health. This conceptualization leads to measures of performance, such as patient mortality, that focus on the extent to which a hospital is successful in meeting its goals.

In terms of the Systems Model, an organization is viewed as a social organism that consists of several sub-parts that interact among themselves, and with the external environment. Hence, measures of performance focus on the ability of each sub-part to perform its function, such that the whole system meets its goals. For example, if a hospital is seen as a complex system comprised of several sub-units, it leads to measures of performance, such as a measure of autopsy rate, which evaluates the extent to which a sub-unit performs a certain function that will lead to overall hospital performance.

Scott (1977), Seashore (1983) and Quinn & Rohrbaugh (1983) in their reviews have suggested other ways of classifying the models that underpin measures of performance. Scott (1977) discussed how different measures of performance emerge based on the whether the organization is modeled as a rational, natural, or open system model. Seashore (1983) suggested an integrative framework that was similar to Scott's (1977), but which combined the natural and open system models into one, and added a decision process model. Quinn & Rohrbaugh (1981; 1983) built on these attempts at integration to present the competing values, and the spatial, models.

Since no conceptualization of an organization is complete, measures of organizational performance, which are necessarily based on particular organizational conceptualizations, cannot be complete. Cameron (1986) argued that conceptualizations of organizations are based on metaphors. It can be argued that the Goal Model and Systems Model discussed above are underpinned by the metaphor of a machine and an organism respectively. Each metaphor reveals a certain aspect of an organization that is not evident with the use of other metaphors (Morgan, 1980), thus creating limitations on the extent to which measures of performance based on any particular metaphor can be considered complete. Some metaphors are better suited for certain organizations and situations, making measures based on those metaphors more appropriate. Put differently, the appropriateness of a measure of organizational performance is based on the conceptualization of an organization.

2. *Measures of performance reflect the values, beliefs, and preferences of those who develop and/or use them.* As discussed above, measures of performance are abstractions without any objective referent (Cameron, 1986). Individuals interpret organizational activity from their own perspectives. The choice of metaphor used to conceptualize an organization is based on their values, beliefs,

and preferences (Quinn & Rohrbaugh, 1983; Zammuto, 1982). Although they may not always be able to clearly articulate their beliefs and values (Argryis & Schon, 1978) or may change them (Miles & Cameron, 1982; Zammuto, 1982), their conceptualization of an organization, and hence the measure of organizational performance they utilize, reflect their current values and beliefs (Quinn & Rohrbaugh, 1983).

A typical organization consists of several constituencies with members of each constituency sharing a set of values, beliefs, and preferences (Pennings & Goodman, 1977; Scott, 1977; Zammuto, 1982). Each constituency evaluates an organization's performance from its own idiosyncratic perspective.

> "Not all dimensions of organizational performance are taken into account by constituencies in making their judgments. Only those specific facets of performance which are important to individuals enter into their assessments. Hence, different constituencies evaluate different aspects of an organization's total performance" (Zammuto, 1982: 2).

In other words, each constituency, based on its set of shared values and beliefs, conceptualizes a particular organization in an unique way. This interpretation underpins its conceptualization of the organization and choice of measure of performance.

Just as individuals change their beliefs and values, sometimes constituencies may change their beliefs and values (Zammuto, 1982; Miles & Cameron, 1982) causing changes in the measures they use.

> "As preferences for performance change, the actual criteria or the way in which constituencies employ existing criteria in evaluating performance change" (Zammuto, 1982: 3).

Therefore, the relationship between measures of performance and constituencies is not static. As constituencies respond to new situations and change their values and beliefs, the measures of performance they use reflect their new perspective.

3. *Measures of performance reflect the interests of those who develop and/or use them.* Organizations are political arenas in which divergent constituencies attempt to institutionalize performance criteria that serve their interests (Pennings & Goodman, 1977; Scott, 1977; Pfeffer, 1981). These interests may be material, but may also include enhancement or maintenance of status, control over work activity and work schedule. In addition to holding common values and beliefs, members of a constituency share similar interests which they try to promote as they develop measures of performance. Given that measures of performance are based on a high level of abstraction, several measures may emerge from the same set of values, beliefs and preferences. The measure that is promoted by a constituency, however, meets its interests more than those of other constituencies (Scott, 1977).

The potential conflict among various constituencies as they try to promote self-interested measures of performance is resolved through the use of power. As Pfeffer (1981) describes it,

> "(a)lmost all decision situations confront the decision makers with the necessity of not only choosing among multiple alternatives but also among the multiple criteria that could be used in the evaluation of these alternatives ... Given the availability of multiple measures for assessing alternatives, one use of power involves advocating the use of criteria which favor one's own position (Pfeffer, 1981: 138).

Consensus on measures to be used is achieved through a process of bargaining among constituencies or their representatives in the dominant coalition (Pennings & Goodman, 1977; Zammuto, 1982).

The measures on which consensus is achieved

> "may have different degrees of importance for different constituencies in the dominant coalition, but somehow the preferences and expectations are aggregated, combined, modified, adjusted, and shared by the members of the dominant coalition" (Pennings & Goodman, 1977: 152).

In similar terms, Zammuto (1982) suggested that

> "various interest groups bargain or negotiate the referents, goals, and constraints to be accepted by them as the substantive definitions of an organization's effectiveness. The dominant coalition synthesizes the preferences of the various interest groups into a single, aggregate perspective of organizational performance. Thus, effective organizational performance is defined as performance satisfying the negotiated preferences of the dominant coalition within which the preferences of the organization's most powerful constituencies are weighted most heavily" (Zammuto, 1982: 42-43).

In other words, measures of performance used in an organization reflect the interests of those who comprise the dominant coalition in an organization.

In summary, it was argued in this section that, measures of organizational performance are not based on any absolute criteria but reflect the values, beliefs and interests of those who develop and/or use them. The measures used in an organization are aligned with the preferences and interests of those who are part of the dominant coalition.

2.1.2. Types of Measures of Performance

Scott (1977) suggested that any analysis of organizational performance should address issues related to an organization's outcomes, processes and structures. These three facets of an organization provide the basis for three types of measures of performance. The three types as applied to hospitals will be discussed in detail in Chapter 4. However, a brief description of each type is provided here.

Outcome Measures. An organization normally produces an output--a product or a service--that meets the needs of clients. Outcome measures focus attention on specific characteristics of an organization's output to assess its

performance against established standards. These standards, depending on the purpose of evaluation, may focus on quality of output, quantity of output or both.

When the characteristics of the outputs of an organization are easily identifiable and measurable, outcome measures are most convenient. Consider the example of an organization that produces automobile parts. If quality is the focus, it can use industry standards or develop its own standards in order to compare the quality of its output to the desired quality. The dimensions of quality for such products are relatively simple to establish and measure. The rate at which its output meets the desired target is a measure of performance of the organization. If quantity is the focus, it can set volume targets and performance may be assessed in terms of the ability of the organization to meet those targets.

However, measures based on outcomes are incomplete because organizations may not be able to determine the reasons behind inadequate performance by relying solely on outcome results. Further, the outputs of an organization may not be easily measurable. In such situations, measures based on processes and structures may be used. They are not intended to replace outcome measures but are based on the assumption that organizational processes and structures contribute to organizational performance. If organizational processes and structures meet the required standards, then it is expected that the organizational output will meet the outcome standards.

Process Measures. Almost every organization depends on the performance of several internal subdivisions and coordination among them to produce an output. Measures based on processes assess the degree to which each component of an organization meets certain performance standards, and how their activities are coordinated, in order to ensure the desired final outcome (Scott & Meyer, 1991).

> The standards employed focus attention on the activities performed by organizational participants, and assessment consists of determining the degree of conformity to these performance standards (Scott, 1977: 82).

Put differently, process measures evaluate the diverse process inputs that result in an organization's output, rather than evaluate the final output.

Consider the example of the automobile parts manufacturer introduced above. A part may require several machining operations or be assembled from several smaller components. Process measures focus on quality standards for each machining process or the quality of each component. If individual machining processes and components meet their respective process standards, the organization is likely to produce parts that meet the outcome standards.

Process measures may aim at assessing quality, as discussed above, or may be employed to measure quantity of activities performed. For an automobile parts manufacturer, such measures may include measures of the frequency at which a tool is renewed or the frequency at which a particular maintenance activity on an equipment is performed. Manufacturing standards specify the appropriate frequencies, and organizations that maintain those frequencies are likely to meet outcome standards.

Structure Measures. Like process measures, structure measures do not focus on the outcome. They focus on

> "organizational features or participant characteristics presumed to have an impact on organizational effectiveness, including administrative [features] that support and direct production activities" (Scott, 1977: 84).

Structure measures are designed to evaluate the adequacy of organizational features that are perceived to have an impact on the organization's output. This may include the evaluation of organization structure, administrative processes that

support and direct production activities, or qualification of personnel performing the tasks.

> If process measures are once removed from outcomes, then structural indicators are twice removed, for structural measures index not the work performed by structures but their capacity to perform work - not the activities carried out by organizational participants but their qualifications to perform the work (Scott, 1977:85).

In the case on an automobile manufacturer, structure measures may focus on manufacturing equipment to assess whether they are capable of performing the desired machining operations. Further, they may focus on the experience and training of the personnel who work with the equipment to assess whether they have the ability to execute the desired operations using the available equipment. The availability of adequate equipment or personnel does not ensure outcome performance, but increases its likelihood.

The three types of performance measures emphasize different aspects of an organization's performance. As discussed earlier in the chapter, they will be influenced by the values, beliefs, and interests of the individuals or groups who develop them. However, any attempt to establish measures of performance, whether they are based on outcomes, processes or structure, requires three types of decisions. They are

> "(1) selecting the characteristics or properties to be assessed; (2) if more than one property is involved and an overall evaluation is made, determining the weights to be assigned to each property; and (3) determining the standards against which observed values on properties be assessed " Scott (1977: 68).

In addition to the values, beliefs and interests of the people trying to establish a measure of performance, their ability to execute the three step process for each type of performance measure varies with the nature of organizational activity.

After a discussion of the beliefs of internal constituencies of an organization in the next section, an analysis of the relationship between organizational activity, external influences on the organization, and types of measures of performance is presented.

2.2. Organizational Belief System and Measures of Organizational Performance

As was alluded to in the discussion of measures of organizational performance in the earlier section, an organization is comprised of several internal constituencies whose members share a common set of values, beliefs, and interests (Pennings & Goodman, 1977; Young, 1989). Each constituency shares a belief system that is distinct and in some way in conflict with the beliefs of other constituencies. The divergent belief systems are adjusted and modified as they come together to be aggregated in the organizational belief system. While some of the changes may occur because of a genuine acceptance of beliefs and values of other constituencies, other changes occur as a result of the exercise of power. Dominant constituencies, through the use of power, are able to force and/or persuade weaker constituencies to accept the beliefs of the dominant constituencies. Since differences are resolved through the exercise of power, an organizational belief system is normally dominated by the beliefs and values of powerful constituencies in the organization that are represented in a dominant coalition (Cameron, 1981; Child, 1972; Pennings & Goodman, 1977; Pfeffer, 1981; Salancik & Pfeffer, 1977).

An organizational belief system is a set of assumptions, beliefs and values that govern an organization's activities. It may be understood as the 'interpretive scheme' (Ranson et al., 1980), 'culture' (Schein, 1984; 1990) or 'ideology' (Meyer, 1982; Meyer & Starbuck, 1993) of an organization. It provides each member of an

organization a cognitive schema that maps their experience of the world, identifies its constituents and relevances and offers assistance to know and understand them (Meyer, 1982; Ranson et al., 1980).

Measures of performance, as articulated and used by members of an organization, are developed within the framework provided by its organizational belief system. Since members of the dominant coalition enact (Smircich & Stubbart, 1985) a 'reality' within which they determine the standards of performance, measures of organizational performance in use in an organization mirror their values and beliefs (Cameron, 1981; Child, 1972; Pennings & Goodman, 1977; Zammuto, 1982). The dominant coalition, which normally consists of representatives from the powerful constituencies, through its power over organizational decision making, has the maximum influence on the measures of performance that are institutionalized (Child, 1972; Pennings & Goodman, 1977; Pfeffer, 1981). The influence of external factors on the dynamics among internal constituencies will be discussed in Section 2.3.

The ability of members of the dominant coalition to persuade others in the organization to support the measures of performance they advocate is contingent on the nature of the organizational belief system. In other words, the degree to which a particular measure of performance is accepted by the organizational membership depends on the degree to which the members share the beliefs of the dominant constituency or constituencies.

2.2.1. Organizational Belief Systems and Internal Processes

Walsh, Hinings, Greenwood, & Ranson (1981) suggest six patterns of organizational action that may be used to understand the process by which performance measures advocated by dominant groups become part of the organization. The typology of patterns of action is shown in Table 2.1.

Table 2.1
Patterns of Organizational Action

		Values		
		Consensus	**Unthought Consensus**	**Dissensus**
Interests	**Motivation to pursue interests**	**Integrative resource bargaining**	**Instrumental/ erratic action**	**Organizational revolution**
	No motivation to pursue interests	**Harmony**	**Apathy**	**Missionary action**

(from Walsh et al., 1981: 140)

According to the typology, organizational actions and their consequences can be understood by examining the status of beliefs, values and interests in an organization. There may be significant variation among organizations in the degree to which its members share or are committed to the beliefs and values espoused by the dominant coalition. Consensus, Unthought Consensus, and Dissensus describe three states that reflect different levels of commitment to organizational values and beliefs. Consensus describes a situation in which there is an agreement among members on core organizational beliefs and values. The consensus may be genuine or created through manipulation by powerful members. It represents the case in which the beliefs of the dominant group are shared or

accepted by others in the organization. In other words, consensus describes the condition when the organization has a strongly shared organizational belief system.

Unthought consensus refers to a situation when there are no obvious disagreements over organizational values, mainly because they are not clearly articulated. Although organizational members and/or constituencies do not necessarily agree with the dominant coalition, their values and beliefs are tolerated because members are not committed to any alternative belief system. It represents a weakly shared organizational belief system.

Dissensus occurs when there are observable disagreements among members on the articulated organizational values. The beliefs of the dominant coalition are not shared by all individuals/groups of the organization. Further, these individuals/groups are committed to alternative belief systems and actively advocate their positions. If there are several alternative systems, this represents a fragmented organizational belief system.

Independent of the level of agreement on beliefs and values as described above, organizational members may be motivated to pursue their interests to varying degrees. This has an impact on organizational processes. Walsh et al. (1981) differentiated between situations when there is a motivation to pursue their interests and when there is a lack of motivation to strive for them.

When the organization belief system is strongly shared, the possibility of conflict over measures of performance is low. If the agreement over organizational values and beliefs is genuine, then almost by definition there will be a consensus on measures of performance. If the agreement is based on manipulation by a powerful group, then the possibility of conflict depends on its ability to prevent the latent conflict from surfacing as a real one.

However, an absolute consensus over organizational values and beliefs is rare, if not impossible (Walsh et al., 1981). Therefore, even in if an organizational belief system is categorized as strongly shared, there is always a possibility of minor disagreements. These disagreements are resolved through different processes depending on whether members have the motivation to pursue their divergent interests or not. If members have the motivation, the measures emerge out of a process of integrative resource bargaining. The measures reflect the values and beliefs of the dominant coalition, which are shared by the others, but also accommodate the interests of others while preserving the interests of the dominant coalition (Scott, 1977; Pennings & Goodman, 1977). In other words, powerful members are able to persuade other members to accept the evaluation criteria they advocate through negotiations. These processes may require the measures to undergo minor modifications but essentially reflect the values, beliefs and interests of the dominant coalition.

On the other hand, when there is no motivation to pursue interests, bargaining and negotiation processes may be absent. If members/groups who do not fully agree with the measures advocated by the dominant coalition are reluctant to act in order to get their disagreement addressed, they are likely to be accepted in a harmonious fashion. This lack of desire on the part of potentially discontent constituencies to pursue their interests may often be the result of the overwhelming power of the dominant group.

When the organizational belief system is weakly shared, new measures of performance, if any, are likely to emerge without a consistent pattern. Since the dominant beliefs are tolerated due to a lack of alternatives, sustained actions of any kind from dissenting constituencies are unlikely. If dissenting constituencies have the motivation to pursue their interests, new evaluation criteria may be opposed. However, because of a lack of an alternative belief system, the

opposition is occasional or erratic. In the case of apathy, where there is a lack of commitment to alternative beliefs as well as a lack of desire to pursue one's interests, the most likely occurrence is maintenance of the status quo.

When there is a fragmented organizational belief system, there may be one or more well articulated alternative belief systems. Independent of whether members have a motivation to pursue their own interests or not, conflict and the exercise of power become integral with organizational processes. In such situations, the measures of performance that reflect the beliefs and values of the dominant coalition are subject to considerable opposition from groups that espouse alternative values and beliefs.

Fragmented belief systems normally arise from change and also generate change. These changes may be the result of variations in the external environment, modifications in the internal power structure or both. A fragmented belief system cannot be sustained for long. Due to various reasons, the dominant coalition may experience a decay in its power permitting latent beliefs and values of other groups to emerge as viable alternatives. In most cases a dominant coalition emerges from the turmoil and is able to develop a new belief system. It then persuades others in the organization to accept the measures of performance that it advocates.

Based on the typology discussed above, it may be argued that except for the case of a weakly shared organizational belief system when the status quo is maintained, changes in measures of performance will involve the exercise of power. When the organizational belief system is strongly shared, power is exercised within the negotiation and bargaining processes. However, when the organizational belief system becomes fragmented, the exercise of power can be more disruptive leading to significant changes in the organization.

2.3. External Values and Beliefs, and Measures of Organizational Performance

As an open system, an organization is influenced by, and influences, the environment in which it operates. Environmental influence on organizations has been conceptualized in diverse ways (Scott, 1983a; 1987; Scott & Meyer, 1991). Despite several calls to include the role of society in any analysis of organizations (Friedland & Alford, 1991; Scott & Meyer, 1983; Scott, 1983b), theorists and researchers have largely neglected its role. When issues external to an organization have been examined, the focus has largely been on technical pressures imposed by its environment (Scott, 1983; Friedland & Alford, 1991).

Institutional theory, however, has conceptualized the external impact on organizations and organizational processes by distinguishing between two ideal types of environments: technical and institutional (Meyer & Rowan, 1977; Alexander & Scott, 1984; Scott & Meyer, 1991). Institutional theorists suggest that there are differences in the nature of external pressures originating from these two types of environments. Further, the processes by which the dissimilar external forces influence organizations are also different.

Although the distinction between institutional and technical environments is useful as a heuristic device, it is difficult to separate the two types of environments in real situations (Scott, 1983c). It is because of this, and other reasons discussed later, that in this study organizational environments are conceptualized as institutional environments. After a brief description of key concepts that form the basis of distinction between the two types of environments, the rationale behind the decision to 'exclude' technical environments from the study will be explained.

2.3.1. Technical Environments

According to Scott and Meyer (1991)

> technical environments are those in which a product or service is produced and exchanged in a market such that organizations are rewarded for effective and efficient control of their production systems (1991:123).

For example, the environment for a typical manufacturing organization can be described as technical. Its products and production processes are based on well developed engineering technologies (Perrow, 1985). The quality of its product can be assessed against accepted standards. The efficiency of its production processes can also be monitored and compared to those of other similar products. In other words, the performance of an organization in a technical environment can be assessed based on the evaluation of its output.

As suggested above, in a market economy, the external evaluation of performance of an organization operating in a technical environment normally happens in a market of competing goods and services.

> Organizations operating in technical environments are rewarded for effective control of the work process and are expected to concentrate attention on control and coordination of technical processes, buffering these processes from environmental disturbances (Alexander & Scott, 1984: 73).

Organizations that can maintain control over technical processes and protect them from external pressures are likely to be most successful in the market. Good performance in a technical environment is reflected in financial outcomes for the organizations--higher profits, higher share prices, etc.

There are no 'pure' technical environments (Scott, 1983c). However, if one were to exist, it would have standards of performance that were, by and large, shared by all individuals/organizations in it. Alternatively, it may be argued that all constituencies in a technical environment accept the same set of values and

beliefs, thus mitigating the need for negotiations to establish the standards of performance.

2.3.2. Institutional Environments

Institutional environments are

> characterized by the elaboration of rules and requirements to which individual organizations must conform if they are to receive support and legitimacy. The requirements may stem from regulatory agencies authorized by the nation-state, from professional or trade associations, from generalized belief systems that define how specific type of organizations are to conduct themselves (Scott & Meyer, 1991:123).

In other words, organizations in institutional environments are exposed to pressures from institutions which can be "broadly defined as including the rules and belief systems as well as the relational networks that arise in the broader societal context" (Scott, 1983a:14). The beliefs that comprise the belief systems may be viewed as a set of "rational myths".

> "The beliefs are rational in the sense that they identify specific social purposes and then specify in a rule-like manner what activities are to be carried out (or what type of actors must be employed) to achieve them... these beliefs are myths in the sense that they depend for their efficacy, for their reality, on the fact that they are widely shared, or are promulgated by individuals or groups that have been granted the right to determine such matters." (Scott, 1983a: 14).

An institution or set of institutions constitute the normative climate within which formal organizations operate. An institution prescribes practices that an organization should have and proscribes practices that an organization should not have (Douglas, 1986; Hinings & Greenwood, 1988b; North, 1990). In Kuhn's (1970) terms, an institution provides the paradigmatic framework or 'constellation of beliefs, values, techniques, and so on shared by a given community' that directs organizations towards goals and offers criteria to evaluate performance.

The rules and regulations that become identified with an institution emerge from conventions adopted by individuals/groups who are at the core of the institution (Douglas, 1986). Conventions develop when a set of people have a common interest in following certain rules in order to ensure coordination of their activity and interaction. Over time these conventions develop a status of their own and become an institution or part of an institution.

> "For a convention to turn into a legitimate social institution it needs a parallel cognitive convention to sustain it... established institutions, if challenged, are able to rest their claims to legitimacy on their fit with the nature of the universe" (Douglas, 1986:16).

In other words, a convention, which initially meets the needs of a set of concerned parties, may gain the status of an institutionalized norm when society at large accepts it as legitimate. This happens when people who espouse the beliefs of an institution are able to explain to the rest of society, through a process of reasoning, the relationship between the convention and the nature of society. Once people accept a convention or a set of conventions as a legitimate institution, it is sustained because

> "it causes them to forget experiences incompatible with its righteous image, and it brings to their minds events which sustain the view of nature that is complementary to itself" (Douglas, 1986: 112).

In other words, institutions impose cognitive restraints that prevent people from questioning their legitimacy.

An institution need not be supported by all segments in society. Its legitimacy is ensured as long as it is accepted by a part of society, especially powerful segments within society. Members who are favorably affected by the continued legitimacy of an institution make efforts to maintain its status. They develop formal rules and informal codes to deal with situations in which institutional norms are violated.

> Therefore, an essential part of the functioning of institutions is the costliness of ascertaining violations and the severity of punishment (North, 1990).

In other words, institutions that tend to be dominant in society develop systems to prevent people from challenging their legitimacy in a given arena. Therefore, the combination of latent cognitive restrictions and visible disciplinary mechanisms permit established institutions to prevent and/or endure challenges to their legitimacy.

Institutions that become dominant in society normally adopted by several constituencies, that espouse similar and related belief systems. Each institution contains a set of norms and rules based on the core beliefs and the network of relationships among its constituents. The norms that become identified with an institution reflect the values and beliefs of individuals or groups who occupy positions of power within its framework.

> "Shared belief systems and relational frameworks come together in complex and shifting ways. They may converge and be mutually supportive; they may work in opposition, one facet challenging and undermining the other; or one may operate in lieu of another" (Scott, 1983a: 15).

The processes by which positions of power emerge and the extent to which their occupants are able to persuade others to comply with their norms varies from situation to situation. Some of the ways in which power may be exercised are similar to processes that occur within an organization[2].

Institutional environments sustain working systems or organizations that are different from those in technical environments. In a typical institutional environment, the quality of output and the efficiency of processes of an

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[2] We suggest that the processes by which the dominant group in an institution persuades other groups to accept the dominant norms are similar to processes by which dominant constituencies within organizations persuade organizational members to accept their beliefs. These processes were discussed in Section 2.1 of this chapter.

organization are difficult to assess and monitor. Also, the processes are not subjected to standard technical pressures. As a result, satisfactory performance, for organizations in institutional environments, is their ability to receive support and legitimacy for their activity from powerful institutions in their environment (Meyer & Rowan, 1977; Baum & Oliver, 1991; D'Aunno et al., 1991). Organizations attempt to conform to institutionalized norms or regulations in order to receive support from their environment. These norms are stated in terms of process and structural measures. In other words, their success is based on the extent to which their structural features and processes receive the approval of powerful segments within the environment.

A public school is a good example of an organization in an environment with predominantly institutional pressures (Alexander & Scott, 1984; Scott & Meyer, 1991). It has been difficult to establish standards of performance against which to measure the output of public schools. A graduating student, who may be considered a school's output, cannot easily be compared to a model student to assess quality of education. It has also been difficult to establish standardized criteria to evaluate effectiveness of teaching practices. Institutional agencies, that represent the state (and hence society), may use process measures like number and types of courses offered, and number of students registered in the program; and structural measures like size of classrooms, and qualification of teachers to assess a school's performance. Schools seek to conform to the norms of the institutional environment in which they operate in order to maintain a flow of resources. As long as the institutions maintain their dominance in society, a school that receives their approval maintains its legitimacy.

The two ideal types of environments are best conceptualized as intersecting axes rather than ends of the same continuum. Alexander & Scott (1984) suggested

that environments can be classified into categories based on level of technical and institutional pressures they exert on organizations. If each ideal type of environment is divided in two, it results in four categories: (1) strong technical - strong institutional; (2) strong technical - weak institutional; (3) weak technical - strong institutional; (4) weak technical - weak institutional. Each category of environment exerts different levels of technical and institutional pressures on organizations. The four possible environmental conditions, along with examples of organizations that are likely to be found under each condition are shown in Table 2.2.

As mentioned earlier, it may be difficult to draw a sharp distinction between technical and institutional environments (Scott, 1983c). As illustrated in Table 2.2, all "organizations are subject, at least to some degree, to both technical and social/cultural [or institutional] forces" (Scott, 1983c: 159). Further, organizations in technical environments

> "often develop norms and rules that appear to govern a technical process. Conversely, technologies can become institutionalized, infused with cultural value beyond the contributions they make to the performance of technical tasks... Finally, organizations performing in technical environments sometimes attempt to escape from market processes and move into more secure institutional environments" (Scott, 1983c: 160).

In other words, although institutional and technical environments can be conceptually differentiated, it is difficult to establish a clear demarcation between them.

However, Scott and Meyer (1991) and Scott (1991) suggest general statements about the relationship between types of measures of performance and

Table 2.2
Environmental Conditions with organizational types likely to be associated with each condition.

Technical Environments	Institutional Environments: Strong	Institutional Environments: Weak
Strong	General Hospitals Banks Defense contractors Utilities Pharmaceuticals*	Retail goods manufacturers Research firms Information processing services Pharmaceuticals*
Weak	Mental Health Clinics Public Schools Welfare agencies Legal Agencies Churches	Cleaning/Laundry services Shoe repair shops Barber shops Restaurants

(adapted from Alexander & Scott, 1984: 75 and Scott & Meyer, 1991:124)

Note: * Scott & Meyer (1991) positioned pharmaceuticals overlapping the top two squares.

the nature of an organization's environment. Organizations operating in an environment that is predominantly technical will have their output evaluated in a

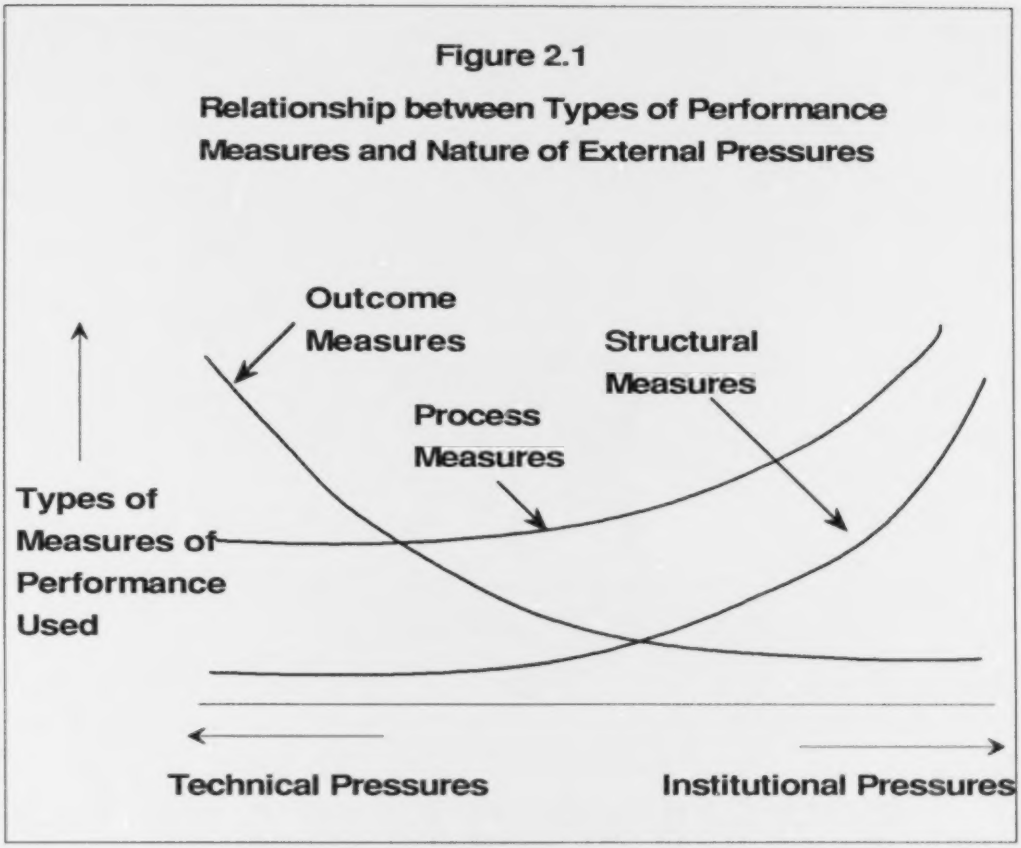
market of competing goods. In other words, external evaluation of an organization in a technical environment occurs through the evaluation of its output. As the institutional features of an environment increase, evaluation based on outputs is less feasible, hence the external evaluation moves towards process and structural measures.

The relationship between types of performance measures and an organization's external pressures can be schematically represented as shown in Figure 2.1. When technical pressures on an organization relative to institutional pressures are high, measures of performance used within the organization focus on outcomes. There is relatively little emphasis on process measures and even less of an emphasis on structure measures. However, as there is an increase in the institutional component in the environment, there is an increased emphasis on process and structural measures and a decline in the use of outcome measures.

For example, an agency that regulates pollution may specify the quality of air that can be emitted. This is an outcome measure based on technical standards. However, it may be difficult for the agency to ensure that organizations meet those standards. The inability of the agency to ensure that technical standards are met causes it to shift towards process measures. It emphasizes the type of processes that organizations may use so that the desired pollution rate is achieved. This shift to process measures is a move away from technical standards towards institutional norms. There may be other technically appropriate processes that can achieve the desired outcome, but organizations are compelled to use the processes that are approved by the agency. The agency may go further and provide specifications for the pollution control equipment. This structural measure is one step further in increasing institutional control relative to technical control of an organization. Organizations are 'forced' to install equipment manufactured by particular firms that have the approval of the agency.

Figure 2.1

Relationship between Types of Performance Measures and Nature of External Pressures



In this study, no attempt was made to separate the two types of environments for two reasons. First, as will be demonstrated later, the characteristics of the empirical setting for the study permits both technical and institutional environments to be viewed as institutional environments. Second, the purpose of this study was to emphasize the impact of belief systems on organizational processes, and conceptualizing external pressures in terms of institutional environments facilitates the discussion of such influences. Therefore, all external influences on organizations were seen as emerging from institutional environments.

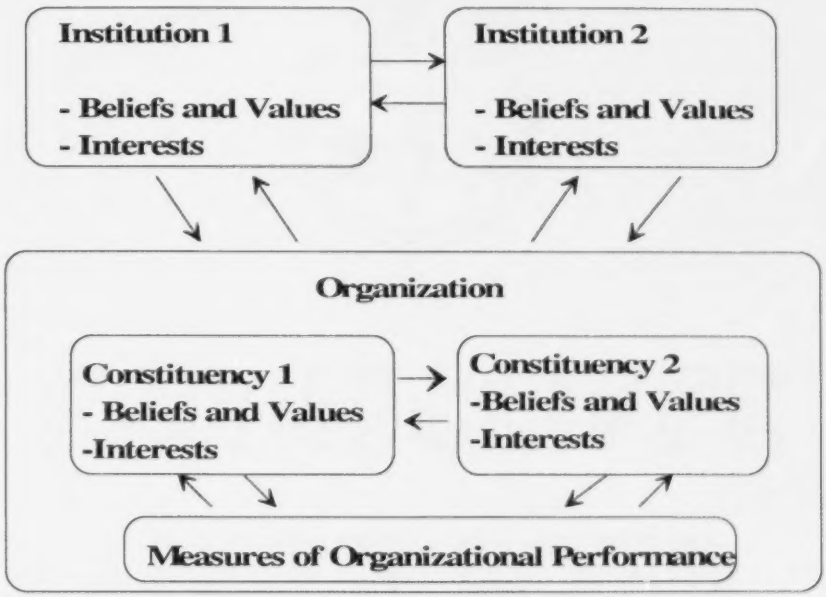
It was suggested that an institution develops around the norms and conventiaons adopted by a network of individuals/groups who share a similar set of beliefs. The norms that become identified with the institution most closely reflect the values and beliefs of the dominant group within it. Therefore, the impact of an institution on organizations, and hence on measures of performance may be seen as the impact of the values and beliefs of this dominant group. In other words, the influence of an institution on organizations can be examined by treating it's dominant group as one of the many constituencies that participate in the process by which the measures are 'created'.

In Section 2.1., it was argued that measures of performance reflect values and beliefs of those who develop and/or use them. In Sections 2.2. and 2.3. respectively it was suggested that the internal forces originated from the beliefs and interests of the controlling groups within organizations and that external pressures were rooted in the beliefs and interests of powerful groups in an organization's environment. Consequently, it is suggested that measures of performance used in organizations reflect the beliefs and interests of powerful constituencies in organizations and in their environment. In other words, measures of performance used in an organization are products of the interaction among the belief systems of internal and external constituencies. Figure 2.2. provides a pictorial representation of the interactions among an organization's internal and external belief systems that produce measures of performance.

As discussed in Section 2.3., institutions are comprised of rules and norms that are underpinned by a particular set of values and beliefs. An organization is constrained by the rules and norms imposed by institutions that are relevant to the domain of its activity. For simplicity, Figure 2.2. illustrates an organization that is subject to constraints from two institutions. These constraints are represented by arrows that are directed from the institutions towards the organization. The parallel

arrows in the reverse direction suggest that the rules and norms of any institution are not independent of influences from organizations on which they exert pressures. Organizations, especially powerful ones, make efforts to have institutions adopt norms that are more favorable to them.

Figure 2.2
Interaction among Internal and External Beliefs, Values, and Interests and Measures of Performance



As described in Section 2.2., an organization may consist of several internal constituencies that espouse differing beliefs and values, and also have varying interests. Figure 2.2. shows an organization with two internal constituencies. The constituencies interact as they develop and promote measures that conform with

their beliefs and also meet their interests. The measures of performance that are adopted reflect the values, beliefs and interests of the dominant constituency. The power of a constituency, in addition to reasons internal to the organization, is influenced by the nature of institutional pressures. A constituency gains in power if its values and beliefs are similar to the values and beliefs of a dominant institution.

As shown in Figure 2.2., the causal relationship between measures of performance and belief systems is not uni-directional. While it has been argued that measures of performance reflect the values and beliefs of the interacting constituencies, they also act as an anchor as beliefs systems change, and as a result they influence the formation of belief systems. In other words, 'new' measures of performance are produced through a dialectical interaction among changing beliefs systems and existing measures of performance.

In this study, however, the focus of research was on assessing the impact of changes in relative influence of external institutions on the measures of performance within organizations. As will be discussed in Chapter 3, there have been changes in institutional pressures faced by hospitals in Alberta. Put differently, hospitals are experiencing pressures from an institution that has increased its legitimacy in society. According to the framework in Figure 2.2., this should have an impact on measures of performance used within hospitals. In the next section, some of the possible processes that may occur as a result of the new institutional pressures, which result from changes in external belief systems, are examined.

2. 4. Organizational Responses to Changing Institutional Pressures

Oliver (1991) proposed five types of strategies that organizations exercise in response to changing institutional pressures: acquiescence, compromise, avoidance, defiance, and manipulation. They vary from passive conformity in the case of acquiescence to active resistance in the case of defiance and manipulation. In terms of Figure 2.2., the institutional pressures are represented by the arrows from the institutions towards the organization, and manipulation and defiance may be seen as the arrows in the opposite direction, while the remaining three sets of arrows are internal interactions. She suggested that organizations may simultaneously use more than one strategy, and that the choice of strategy is contingent on the characteristics of the institutions. After a brief discussion of Oliver's (1991) typology of strategies, and choice of strategy based on the characteristics of the institutional environment, the impact of the attributes of an organization's belief system on its response will be discussed.

Manipulation. Manipulation, as a response to institutional pressures, is the most pro-active because it attempts to influence the source of the new pressures to remove them, rather than attempt to tackle the situation created by them. It is "the purposeful and opportunistic attempt to co-opt, influence, or control institutional pressures and evaluations" (Oliver, 1991: 157). These tactics decrease the ability of any external constituent from exerting pressures that are incompatible with an organization's belief system.

Co-optation is an attempt to increase political support and legitimacy by getting powerful external constituents to be associated with the organization. Institutional agencies themselves depend on societal legitimacy for their existence. They are less likely to press their new norms on organizations if that may result in a confrontation with a more powerful institution and result in undermining their

own institution. Therefore, co-optation is intended to prevent or deter any external constituency from initiating actions that do not fit with the organization's existing belief system by displaying association with powerful institutions.

Influence tactics, on the other hand, are aimed at the values and beliefs espoused by institutions and the general public. Since measures of performance used by institutions reflect their values and beliefs, organizations attempt to change or neutralize the impact of the external values and beliefs that do not conform with their organizational belief system. Specific steps may include lobbying the institutional bodies to change their evaluation or to avoid public pronouncements of those evaluations. Since institutions ultimately depend on public support, organizations may take their campaigns directly to the public and restrict the ability of an institutional agency to act.

Controlling tactics are more aggressive than the tactics discussed above. They are "efforts to establish power and dominance over the external constituents that are applying pressure on the organization" (Oliver, 1991: 158). Such tactics are normally used against a weak external constituent. For example, an advocacy group that does not have significant societal legitimacy, but attempts to exert pressures on an organization may be subject to control tactics. This may include attempts to prevent such groups from acquiring resources or taking action to restrict their access to the general public.

Defiance. The defiance strategy is also an active form of resistance to external pressure, although it is less pro-active than the manipulation strategy. Oliver (1991) suggests three possible tactics within this strategy: dismissal, challenge, and attack. An organization may choose to dismiss or ignore the new institutional pressures and continue to function as it did before they were exerted. Non-observance of the a new norm may be a result of a lack of understanding by

organization members of its rationale or their perception that consequences on non-compliance are not damaging.

Challenge is a more active tactic than dismissal. Organizations may challenge the rationale of the new pressures by demonstrating their incompatibility with their current activity. Oliver (1991) sites the example of several Canadian manufacturers who

> "have attempted to challenge Ministry of Environment directives to conform to specific water pollution standards because they feel these directives are not "rational" and their own behavior on pollution is above reproach" (Oliver, 1991: 157).

In other words, organizations may understand the intent of the new norm but challenge its basis. The choice of this tactic is also based on an organization's perception that the negative consequences are not significant.

The next tactic, attack, is the most aggressive of the three. Organizations that use this tactic "strive to assault, belittle, or vehemently denounce institutionalized values and the external constituents that express them" (Oliver, 1991:157). While the two defiance tactics discussed above are not overtly confrontational, this tactic is very aggressive. It is normally used when the new pressures have the potential of having a significant negative impact on the organization, and less aggressive options are seen to be inadequate.

Avoidance. Organizations may avoid the need to conform to the new norms by using tactics like concealing, buffering, or escaping. The concealment tactic is an attempt to disguise nonconformity. An organization may establish all the externally visible elements that display conformity without implementing actual changes to its processes. If compliance with the new norm is incompatible with an organization's belief system, and yet the negative consequences are of non-compliance are high, organizations may make public displays of compliance without real acquiescence.

Buffering consists of attempts to reduce the extent to which actual organizational processes and systems are exposed to external scrutiny. Like concealment, organizations use this tactic to maintain institutionally sanctioned formal structures and systems, but decouple actual activity from them. When possible, organizations may use legitimate arguments to prevent external agencies or the public from examining real organizational processes.

While organizations may use concealment and buffering to avoid compliance and continue their operations, another option available to them is to escape from the domain to another domain where similar pressures are absent. In other words, organizations may re-define their purpose such that new pressures do not apply to them, or move to another jurisdiction where the pressures do not exist.

Compromise. In many situations, the three strategies discussed above are not feasible. Organizations are forced to comply with external pressures. However, oftentimes total compliance is also not possible because they experience conflicting pressures from different external constituencies. Under these circumstances, they attempt to balance, pacify or bargain with the external constituencies. Balancing involves attempts to offset the negative impact of non-compliance with one set of pressures with gains from compliance with another set of pressures.

In other circumstances, organizations attempt to pacify the external constituency by meeting at least its minimum standards. Although they do not meet the full requirements, they do enough to prevent the external agency from applying sanctions that could harm them.

Finally, bargaining involves attempts to get an external agency to soften its requirements through a process of negotiation. Organizations approach the

external constituency in a spirit of compliance, but are able to negotiate with them a lower level of compliance than the original regulations would have required.

Acquiescence. Organizations often conform to the external pressures. However, conformance may take different forms: habit, imitation, and compliance. Habit and imitation are tactics that involve unquestioned conformity to institutional processes. Some rules and regulations or institutionalized activity are taken for granted and organizations adopt them by habit. They have always conformed to institutional pressures, and they do the same with the next one. Similarly, organizations may conform to the new rules and regulations simply because other organizations in the domain have done so.

Compliance is a more conscious tactic. Organization may evaluate the new institutional norms and pursue the benefits associated with conformity. The benefits may be increased funds or increased legitimacy that may make it easier for the organization to function. The new institutional norms may be more compatible with an organization's belief system and compliance may be the most preferred choice.

The discussion of organizational responses presented above suggests that following changes in institutional pressures, changes in measures of performance within an organization is minimum when it adopts the manipulation strategy and maximum when it chooses acquiescence. When the new institutional norms increase alignment between institutions and organizational beliefs, changes are easy. However, if there is a clash, changes are contingent on the ability of the institutional agencies to enforce the new norms. Put differently, compliance is negatively related to ability of the organization to oppose the new institutional norms.

However, the above analysis of choice of organizational response is incomplete because it neglects the internal status of the organizational belief system. There is an implicit assumption that an organization actions represent unanimous decisions of internal constituencies. In other words, it is descriptive of the situation when an organizational belief system is strongly shared and external changes do not create significant changes in it.

As discussed in Section 2.2., this might not always be the case. Organizations with fragmented or weak belief systems may not respond in the way described because of the internal situation. In the case of a fragmented belief system, when external changes raise the status of a previously subordinated constituency, opposition to new institutional pressures form the organization is less likely to occur. As a new dominant coalition emerges, organizational responses are more likely to reflect conformance than opposition. When the organizational belief system is weak, any sustained opposition to external changes is not likely. It is most likely to comply with the external changes. This is addressed again in Chapter 4, when propositions are developed.

2.5. Conclusion

In this chapter, the basic components of the theoretical framework used in the study were described. A general framework that illustrates the interaction among internal and external constituencies as measures of performance are produced/changed was presented. After a brief discussion of the historical context of the changes in the health sector in Alberta in the next chapter, this framework will be adapted for application to hospitals.

CHAPTER THREE

A HISTORICAL PERSPECTIVE ON RECENT CHANGES IN THE HEALTH CARE SYSTEM IN ALBERTA

An understanding of the processes by which measures of hospital performance are 'created' is impossible without reference to the context within which these processes occur. In this chapter, a brief historical account of the evolution of the health care system in Canada, and Alberta in particular, will be provided. The purpose of this chapter is to provide a historical perspective of the recent changes in the health care system in Alberta. It presents evidence of the link between societal values and beliefs, and government policies towards health, that are the main source of institutional pressures experienced by health care organizations.

Since the dominance of the medical profession in the area of health care is central to this study, there is a brief description of the process by which that status was acquired. Throughout the account presented here, there is an attempt to demonstrate that developments in health care are not isolated from the values and beliefs of the general public. Further, it is suggested that government interventions in the health arena reflect those public values and beliefs. This chapter will provide answers to questions such as (i) What were the social and political processes that allowed a particular set of values and beliefs to dominate the development of the health care system ? and (ii) What is the impact of new processes, underpinned by different values and beliefs, on the system ?

3.1. The Health Care System in Alberta

The health care system in Canada is a complex, nationwide, publicly funded system. In Alberta it operates under the authority of Alberta Health, a department of the provincial government, which in turn is constrained by federal standards and financial arrangements between the federal and provincial governments. In 1990, Alberta had 388 health care facilities which included 129 treatment hospitals, 69 auxiliary hospitals, 2 mental hospitals, and 91 nursing homes. As of 1988, the treatment hospitals operated 13,125 adult and child beds, which included 879 long term care beds. The auxiliary hospitals had a capacity of 4287 beds; the mental hospitals, 1,072 beds; and the nursing homes, 7,914 beds (Premiers Commission, 1989b). Of these facilities, 9 treatment hospitals, 12 auxiliary hospitals, 1 mental hospital, and 14 nursing homes are located in Edmonton.

3.2. Stages in the development of the Health Care System

The health care system in Alberta has been influenced by federal legislation, and developments in other parts of country before it became a province. Hence an analysis of the development of the health care system in the province would be incomplete without reference to developments elsewhere. The health care system in Canada can be seen to have developed in four stages. The first stage, roughly between the early 1800s to 1912, is the period in which the medical profession gradually established its dominance in the area of health care in Canada (Torrance, 1987). The second stage, between 1912 to the mid-1940s, is the period in which there was a significant shift in the mode of health care delivery. Hospitals became the core of the health care system. The third stage,

Table 3.1

Stage in the Development of the Health Care System in Alberta (and Canada)

Stages	Period	Significant Characteristics of the Period
Stage 1	(from early 1800s to about 1912)	- Many forms of healing practiced - No single dominant group of healers - Towards the end of the period 'scientific' medicine gains the status of the most legitimate form of healing. - In 1912 the Canada Medical Act standardized medical licensing across the country.
Stage 2	(from about 1912 to mid-1940s)	- Significant improvements in public health - Scientific medicine consolidates position relative to other groups involved in the delivery of health care. - Hospitals replace homes and doctor clinics as locations for the delivery of health care.
Stage 3	(from mid-1940s to mid-1970s)	- Increased government efforts to make health care available to all Canadians - National Health Grants Program in 1948 - Hospital Insurance and Diagnostic Services (HIDS) legislation in 1956 (Alberta joined the program in 1958) - Medical Care Insurance Program in 1968 (Alberta joined the program in 1969)
Stage 4	(from mid-1970s to date)	- Governments seeking to reduce spending of which health care expenditure is a significant component - Federal Provincial Fiscal Arrangements & Established Programs Financing Act in 1977 - Acute Care Funding Program in 1990 in Alberta - Hospital Role Statement Process - Implementation of Management Information Systems (MIS) guidelines

between the mid 1940s to the mid 1970s, is the period in which there was an increase in the participation of all levels of government in the provision of health care. The fourth and current stage, beginning in the late 1970s, is the period in which the federal and provincial governments, which had by then emerged as the monospony purchasers of health care, have tried to control their expenditure on health care. Table 3.1 provides a summary of the characteristics of each stage in the development of the health care system.

In this chapter, after a brief description of the first two stages, the discussions will focus on the third and fourth stages to compare and contrast the values and beliefs that underpinned federal and provincial government actions in these two periods.[1]

3.2.1. First Stage (early 1800s - 1912).

In the early years of the nineteenth century, medicine as was practiced in Canada, even by the European settlers, had little to do with the 'science' we know it today (Torrance, 1987). In the bigger urban centers, health care services were provided by physicians and surgeons from Britain, many of them ex-military men, who had settled in Canada. However, most of the immigrant communities outside these centers relied on traditional healing practices and home remedies they had brought with them. Lay people from these communities who performed the role of healers relied heavily on herbs, roots, fruits and leaves, along with whisky, brandy and opium, for medicinal purposes.

However, there was a gradual increase in the number of trained physicians, and in the availability of patented medicines. Although these two trends raised the profile of modern medicine, no particular healing occupation had a dominant

[1] For detailed descriptiond of Stages one and two see Torrance (1987) and Taylor (1986)

position in Canadian society by the middle of the nineteenth century. Physicians who practiced modern medicine shared the stage with homeopaths and other eclectic healers. But there was an increase in efforts by physician organizations to get the government to restrict the practice of medicine. With the establishment of the Canadian Medical Association in 1867, these efforts became more organized (York, 1987).

In 1870 the first legislation to restrict the practice of medicine to a few licensed groups was enacted. It faced challenges from practitioners who did not qualify for the license but had significant societal legitimacy. But the medical profession was successful in gradually establishing its dominance by either subordinating other groups involved with healing or forcing them out of the mainstream. The long period of struggle for dominance in the area of health care may be seen to have ended in 1912 with the passage of the Canada Medical Act which standardized medical licensing procedures across Canada (Torrance, 1987).

3.2.2. Second Stage (1912 - mid 1940s).

The second stage saw the hospital emerge as the locus of medical treatment (Torrance, 1987). There were two major reasons for this, both due to developments within scientific medicine, that changed the way in which health care was delivered. First, improved public health techniques were successful in preventing and reducing the impact of serious epidemics in urban areas. This reduced the number of people who needed to be provided with healing services and also changed the nature of cure that was required. The fewer numbers who sought medical attention normally required intensive care which was better offered in hospitals than in a home or a doctor's office.

Secondly, the development of new expensive medical technology, and increased specialization, which required specialists to work in teams, made

hospitals ideal locations for the delivery of health care. Since the medical profession had already established itself as the legitimate authority in matters of health care, the methods of treatment and the division of tasks in the delivery of care developed under its guidance. All treatment was provided under the authority of physicians, with auxiliary tasks being performed by members of other occupations.

3.2.3. Third Stage (mid 1940s - mid 1970s).

By the end of the second stage, the medical profession had a dominant position in the health arena, and hospitals had become the focal points for the delivery of health care. However, despite the large number of hospitals by the mid 1940s, modern medicine was not accessible to many Canadians for two reasons. Firstly, there was a shortage of facilities and practitioners in some regions of the country. Secondly, the hospital services were so costly that they were out of reach of a majority of Canadians. The desire to make adequate health care available to all Canadians created public support for a greater degree of participation by the government in the development and funding of the health care system.

The federal government had largely kept out of the area of health care until this stage. Under the British North America Act, responsibility for health rested with the provinces and fear of constitutional disputes prevented the federal government from intervening in health affairs. In response to popular demand, in 1945 the federal government offered subsidies to the provinces for the introduction of health and social insurance programs but could not reach an agreement with the provinces. The first major federal government action that influenced health care in the provinces was the introduction of the National Health Grants Program in 1948 (Taylor, 1960). It provided grants for a variety of public health care services, including professional training and surveys, and hospital

construction. These grants, along with funds from the reconstruction program after the Second World War, led to the expansion of the health care infrastructure in the provinces.

The funds from the federal government helped expand the infrastructure for the provision of health care, but the lack of support for operating the system created financial burdens for the provinces. This put pressure on the federal government to expand its participation in the provision of health care. In 1956 it adopted the Hospital Insurance and Diagnostic Services (HIDS) legislation that was patterned after the Saskatchewan legislation of 1947. It offered the provinces funds for health care if they met certain federal conditions. This resulted in the birth of a national hospital insurance system that was about 50% funded by the federal government but administered by the provinces. Alberta joined the federally sponsored program in 1958. The program effectively subsidized by approximately 50% the provincial government expenditure on the health care infrastructure and also its operating costs. The incentive created by the subsidy, along with very good economic times, led to the establishment, in Alberta, of one of the most elaborate health care systems in Canada.

The success and popularity of the federal government supported hospital insurance program increased public expectations which resulted in demands for the introduction of government medical insurance. The federal government offered the Medical Care Insurance Program which became operational in 1968. The conditions for the transfer of federal funds to the provinces were similar to the conditions under HIDS. In 1969, Alberta initiated the Alberta Health Care Insurance Plan providing comprehensive prepaid health services to all Alberta residents. This replaced the privately operated insurance services that were available in the province since 1948.

In summary, the third stage of development saw an increase in government participation in the funding of the provision of health care. Health occupies an important place in the public's hierarchy of preferences (Rushing, 1984), and it began to be seen as more of a 'right' than a 'privilege' during this period. People believed that quality health care should be available to all citizens irrespective of their ability to pay. Cost of health care was a relatively unimportant issue in the minds of the public. The government interventions, described above, represent the values and beliefs of Canadian society during this period.

3.2.4. Fourth Stage (mid 1970 - date).

The health care system that developed in the third stage created a significant financial burden at both the federal and provincial levels of government. The total cost on the two federally sponsored programs for the year 1975/76 was $ 6.45 billion of which the federal contribution was 50.8 percent (Taylor, 1986). In 1977 the Federal-Provincial Fiscal Arrangements and Established Programs Financing Act was adopted which was the first step by the federal government to reverse the trend that was established by the National Health Grants Program of 1948. Since then, through various legislations, the federal government has decreased its financial contributions towards health. In 1977, the federal government's share of payments for health care in Alberta was 50%, in the 1988/89 fiscal year it declined to 42% (Premiers Commission, 1989c). This trend is expected to continue as the federal government tries to manage its deficit.

The provincial government in Alberta also has a problem of current and accumulated deficits. Since 1987, the province's spending has exceeded revenues by at least $ 1 billion each year. At the same time, expenditure on health as a

percentage of the total provincial expenditure has been on the rise. In 1980-81 it was 20% while in 1992-1993 it was 30%.

Concern with government expenditure on health care and the general concern with increasing government deficits and declining revenues in this period has caused the provincial government to rethink its policies towards health in the province. Although a majority of Albertans still support the expenditure on health care there is a perception among many that the money can be better spent (Premiers Commission, 1989). In order to control government deficits in general and optimize expenditure on health care, Alberta Health has taken some initiatives to re-organize the health care system. Once again, although with less popular support than in the third stage, the government actions in this stage represent the preferences of the public.

Some specific government initiatives include the implementation of various phases of the Acute Care Funding Plan, the initiation of the Hospital Role Statement Process, and the introduction of the Management Information System guidelines developed by the Hospital Medical Records Institute. The Acute Care Funding Program, as the name suggests, changed the method of provincial funding for hospitals. The previous method of global budgeting was based on the cost of inputs such as nursing wages, cost of drugs and other supplies. Although there was a system of hospital reporting to maintain accountability, there was no mechanism to ensure efficiency. Annual budget increases were granted on a base that was determined mainly by past hospital expenditure. The new method provides hospital funding based on its outputs and cost-efficiency relative to other hospitals in the province. Output is measured based on the number of patients treated and severity of their illness. It recognizes that severely ill patients require higher intensity of care which may cost more. Cost efficiency is measured through a formula which essentially compares the relative cost efficiency of a hospital to the

provincial average cost efficiency[2]. This method of payment, unlike the old method, provides incentives to hospitals to become cost efficient.

The Hospital Role Statement Process is an attempt to coordinate the activities of various health care organizations within geographical regions in the province. It requires each organization to assess its current programs and capabilities, and define its future role in coordination with the roles of other organizations in the area. At the end of the process, each region should be able to reconcile the gaps in services provided, and eliminate inappropriate duplication of services. While the Acute Care Funding Plan provides incentives to make each hospital efficient, the Hospital Role Statement Process is intended to make the whole system more efficient.

The two policies reinforce each other's drive to make the provision of health care in the province more efficient. The Acute Care Funding Program compares the hospital efficiency with the provincial average efficiency, and provides extra funds to those that obtain efficiencies above the average and reduces the funds for those that have efficiencies below average. Hospitals that have costs above average can theoretically do two things to reduce costs (i) make internal changes to improve the efficiency of care delivery, and (ii) discontinue programs that cannot be made more efficient perhaps by transfering them to facilities that are capable of doing them efficiently. The decision to transfer or discontinue a program is linked to the role statement process which attempts to ensure that adequate levels of services are available in each geographic region.

The third major government decision that ties into the two described above is implementation of the Management Information System (MIS) guidelines. Before the implementation of the MIS guidelines, there was considerable disparity

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[2] Appendix 1 provides a description of how the formula operates.

in the data collected across hospitals making inter-hospital comparisons, as required by the Acute Care Funding Program, very difficult, if not impossible. The purpose of the guidelines was to ensure that all hospitals acquired similar data and reported it in the same way.

The guidelines were developed by Hospital Medical Records Institute (HMRI), a federally chartered, independent, non-profit company that specializes in patient specific, health care related information systems. The Case Mix Group (CMG) classification of patients developed by HMRI forms the basis of Acute Care Funding Program. Hence, the province of Alberta has actively participated in the process of implementing the MIS guidelines to ensure that the information being used for its new funding program is consistent with its requirements.

The recent changes in government policy bring to bear a new set of pressures on the health care system in Alberta. As mentioned earlier, the policies of the third period did not reflect a strong need to maintain cost-efficiency within the health care system. However, rising government deficits, rising health care budgets, and demographic changes which suggest a rising trend in the use of health services have combined to force the government to rethink it policies. The re-orientation of government policies reflects a conflict between life-enhancing values and economic values (Rushing, 1984). While hardly anyone in the government, or in the public, would argue that the provision of health care should not be supported by the government, most would argue that the cost of providing care should not exceed the ability or the willingness of society to pay for it.

The government, because of public opinion, has resisted pressures to compromise on the fundamental principles of the Canadian Health Care Systems. Proposals to introduce user fees, or separate insurance programs based on ability to pay were not actively pursued because they were seen to compromise the principle of equal accessibility by all citizens. Further, as discussed in Chapter 6,

there was a strong belief in the government and among health care administrators that, despite its strengths, the health care system in Alberta is inefficient. The recent policies reflect the belief that expenditure on health can be controlled, or even reduced, while continuing to provide the same level of care. While not compromising the goal of making basic health care accessible to all patients independent of their individual ability to pay, the new policies have the aim of keeping total health costs within society's ability to pay.

3.3. Conclusion

This chapter provided a brief description of the development of the health care system in Alberta, Canada. It provided a historical account of the processes in society and within the health system that have resulted in the recent government initiatives.

It was suggested that scientific medicine, which is the most legitimate form of healing today, acquired that status around the end of the nineteenth century. Since then most of the development in the health system in Canada have been guided by the medical profession. Even after the mid-1940s when governments were involved in making health care accessible to all Canadians, they limited their involvement largely to funding issues. Since the mid-1970s the federal and provincial governments have tried to control the amount of money spent on health care. This has resulted in new pressures for hospitals which have, in an indirect way, challenged the traditional dominance of the medical profession.

CHAPTER FOUR

BELIEF SYSTEMS IN HEALTH CARE AND MEASURES OF HOSPITAL PERFORMANCE

The purpose of this chapter is to apply the framework developed in Chapter 2 to the health care system as described in Chapter 3. It will be argued that although hospitals are subject to strong technical pressures, external influences on hospitals can be conceptualized as emerging from two institutions, each underpinned by a different set of beliefs, values and interests. The beliefs and values that underpin the two institutions also comprise the beliefs and values of the two dominant constituencies within a hospital. Therefore, performance measures in hospitals can be understood as the outcome of a sociopolitical negotiation process among external institutions and internal constituencies.

Seven propositions that describe the interactions and processes expected based on the framework are presented.

4.1. The Environment of Hospitals

In Chapter 2 (Table 2.2), it was shown that hospitals operate in a strong technical - strong institutional environment. The technical pressures for a hospital emerge from the requirements of modern medicine. Medicine has a strong scientific and technical foundation that provides standards against which hospital performance can be assessed.

There is considerable scope to measure the performance of a hospital based on the technical evaluation of its output--the extent to which the health status of a patient is restored to normal function (Donabedian, 1969; Lohr, 1988; DesHarnais, McMahon, Jr., Wroblewski & Hogan, 1990). When scientific knowledge about a specific ailment is well developed, the causal relationship between treatment processes and medical outcomes are reliable and valid (Donabedian, 1980). In such situations performance may be assessed based on an examination of medical outcomes alone. In other words, a measure of hospital performance may be based on the assessment of the end results of specific treatment procedures that it provides. However, there is considerable debate in the health care literature (e.g., Donabedian, 1980; Wyszewianski, 1988) about the appropriateness of appraisal of end results only to evaluate performance of health systems or treatment procedures. Oftentimes, it is difficult to establish a strong relationship between the treatment procedures followed and the final outcome (Donabedian, 1980; Wyszewianski, 1988) because there may be innumerable other factors that influence a patient's recovery. Further, it is easier to evaluate the outcomes of certain treatment procedures, e.g., hip replacement, than others, e.g., treatment of pneumonia. It is because of this that in many cases the evaluation of medical processes is preferred to the evaluation of medical outcomes.

Standardized medical procedures are developed based on the technical requirements that emerge from scientific research on specific ailments. The extent to which hospital processes conform to those technical process standards can be used as a measure of performance. As Alexander & Scott (1984) describe it,

> "(t)he technical requirements of modern medicine are considerable... and often demand tight internal controls and careful coordination if performance is to be effective" (Alexander & Scott, 1984: 75).

As described by Donabedian (1969), conformance to technical standards is evaluated through certification, statistical display and analysis of patterns of care, case review, and appraisal of data used for clinical decision making. These evaluation processes based on technical requirements will be discussed in more detail in Section 4.3.

Hospitals also have to maintain strong institutional connections that include "employing of licensed occupations, the receipt of professional accreditation, and the backing of state certifications" (Scott, 1983b: 102). External agencies

> "provide specifications that govern what types of personnel may be hired, how tasks are distributed among them, and what procedures must be followed in performing these tasks" (Alexander & Scott, 1984: 75).

These external agencies normally consist of representatives of various medical professional occupations that have obtained state backing to regulate the activities in health care. As will be discussed later, these agencies do not evaluate performance per se but evaluate the ability of a hospital to achieve good performance.

Since hospitals are exposed to strong technical and institutional pressures, measures of performance used in them may be expected to reflect both technical and institutional needs. However, unlike other organizations that operate under a similar combination of external pressures, e.g., banks, the technical pressures for a

hospital, as explained below, can also be seen as emerging from an institutional environment.

The almost undisputed authority exercised by the medical profession distinguishes the technical environment of a hospital from that of other organizations. While the technical criteria used to evaluate the performance of a typical organization is developed in the 'market', hospitals have normally been shielded from market forces. Unlike the output of other organizations which can be evaluated by consumers, the output of health care organizations cannot easily be evaluated by a lay person (Roos & Roos, 1982). Though there is little evidence that suggests that many clinical practices lead to good medical outcomes (Havighurst & Blumstein, 1975; Lohr, 1988), they are used because of the approval of powerful authority figures in the medical profession (Donabedian, 1980; Schroeder, Myers, McPhee, Showstack, Simborg, Chapman, Leong, 1984). The appropriateness of medical interventions or services is based on

> "the work of the leading exponents of that science and technology; through their published research, their teachings, and their own practice these leaders define, explicitly or implicitly, the technical norms of good care." (Donabedian, 1980: 80)

Put differently, treatment procedures used in a hospital, which cannot be adequately evaluated by a consumer of health care, is also not critically examined by the average providers, who follow the precendent set by prominent experts in the field.

It was suggested in Chapter 2 that institutions can be viewed as 'paradigms' that exert pressures on organizations. It is now argued that since the technical pressures on hospitals emerge from the research, teachings, and practices of leading medical professionals, they can be framed as arising from a 'paradigm', and hence from an institution. There is also an earlier precedent for treating technical pressures as institutional pressures in the health care arena. D'Aunno,

Sutton & Price (1991) in their study of isomorphism in organizations modeled the 'technical' pressures on drug abuse treatment units as institutional pressures.

Further, standards for hospitals are defined by professionals who depend on them for their own evaluation (Zucker, 1987). As a result, "the technologies involved in the medical arena are professionally sanctioned and managed, [and] the potential for conflict [between technical and institutional environments] may be considerably mitigated" (Scott, 1983b: 103). In other words, hospitals have not experienced a clash between technical and institutional pressures that arise from scientific medicine as they have been in harmony with each other.

As described in Chapter 3, hospitals are experiencing 'new' external pressures from outside scientific medicine. The rising cost of health care and the inability of governments, and the general public, to support high expenditure on health has drawn the attention of society to organizational aspects of the delivery of health care. As a consequence, hospitals are being subject to administrative norms that are well established in areas outside health care. As discussed in the next section, these new pressures can also be viewed as originating from an institution.

4.2. Institutions in Health Care

As discussed in Chapter 3, hospitals have traditionally been controlled by medical practitioners and allied health care professionals (Alford, 1975; Friedson, 1985; Ritzer & Walczak, 1988). Ever since modern medicine gained dominance over the health care arena at the end of the nineteenth century, it has been a dominant institution, and has provided the guiding principles for developments in the health care industry (Friedson, 1985; Halpern, 1992; Pescosolido, 1987; Torrance, 1987). Medical professionals, especially physicians and physician

organizations, have had control over nearly all health care related activity within hospitals (Fiorelli, 1988; Friedson, 1970; Halpern, 1992; Hofling, Brotzman, Dalrymple, Graves & Price, 1960) and even outside them (Alford, 1975; Hanson, 1980; Scott, 1983b; Waitzkin, 1989). As a result, the hospital structures, systems and processes were, and still are, underpinned by the values and beliefs of the medical profession.

However, in recent years the health care arena has been influenced by a 'new' institution formed around a different set of values and beliefs. In terms of Alford's (1975) labels, while the medical institution was dominated by the values and beliefs of "professional monopolists," consisting of medical practitioners and allied health care professionals, the new institution is built around the values and beliefs of a coalition of "corporate rationalizers," comprising health care administrators, public health planners, educators, and analysts (Scott, 1983b).

The former institution will be referred to as the Medical Institution, and the latter will be called the Administrative Institution. The beliefs and guiding rules that form the core of these two institutions emphasize divergent principles and hence suggest different criteria for the evaluation of hospitals (Alford, 1975; Havighurst & Blumstein, 1975; Kimberly & Rottman, 1987; Meyer, 1984; Scott, 1983b). The two institutions are discussed in more detail in Sections 4.2.1 and 4.2.2.

4.2.1. Medical Institution

As discussed in Chapter 3, modern medicine, based on scientific biological research, has had a traditional dominance over the health care arena since the late nineteenth century (Torrance, 1987). The conventions and norms of modern medicine acquired the status of an institution--the Medical Institution--when scientific medicine was accepted by society as the most legitimate practice in

healing. Its legitimacy was further enhanced and entrenched when the state, through licensing, certification, and other regulatory means, restricted the practice of medicine to professionals who operated within the norms of the Medical Institution.

Like the values and beliefs of any other school of thought related to healing, the values and beliefs of the Medical Institution, based on modern scientific methods, also stress the importance of good health. In other words, the medical belief system emphasizes life-enhancing values (Rushing, 1984). However, the narrow role of medical professionals in the health care system, who are the prime carriers of medical beliefs, redirects the focus of the medical belief system towards illness rather than wellness (Illich, 1976; Waitzkin, 1989). Physicians and other allied professionals, in their role as health care providers, are normally involved with patients who are already ill. Their efforts are directed towards developing and providing treatment for the illnesses they encounter without paying much attention to events prior to the illness. As a consequence, the core of the medical belief system concentrates on restoring sick patients to good health and neglects issues that deal with preventing illness or maintaining wellness.

Further, most medical professionals do not have an opportunity to examine societal antecedents of illnesses (Illich, 1976; Waitzkin, 1989), causing them to de-emphasize other conceptualizations of health care performance which may focus on non-medical reasons for illness. Medical professionals are not likely to be aware of, or have a desire to deal with, issues like poverty, housing conditions, or nutrition in their role as health care providers. In other words, health related issues that do not emerge from research within scientific medicine are neglected in the medical belief system. However, Eisenberg (1979) suggests that despite claims by physicians that their clinical decisions are based entirely on scientific biological

criteria, sociocultural factors like social class, income and ethnic background have been known to influence the patient-physician relationship, which indirectly affects treatment.

Also, the clinical mentality of medical professionals directs their attention to particular situations (Friedson, 1970; Havighurst & Blumstein, 1975). Through their training and work experience, health care professionals develop a sense of obligation to their patients (Havighurst & Blumstein, 1975) which restricts their ability to look beyond their own experiences with patients while evaluating a health system. The traditional dedication of physicians to their own patients makes it difficult for them to recognize 'macro' issues in health care. They, and other health care professionals, are likely to evaluate the performance of the health care system based on its ability to provide clinical assistance for the treatment of their respective patients without much attention to the ability of society to sustain the system (Havighurst & Blumstein, 1975). Persons who espouse medical beliefs are "likely to stress *micro* care criteria that focus on the needs and interests of individual patients" (Scott, 1983b: 111) rather than on macro criteria that focus on the interests of society at large. Donabedian (1969), in his discussions of levels of concern, suggests that this narrow focus is valid for providers of care because their mission is more narrowly defined than that of others involved with health care, e.g., planners at a national or state level.

The focus on micro issues in health care causes health care professionals to neglect non-medical administrative and economic aspects of the delivery of care. As Havighurst and Blumstein (1975) suggest, physicians, who have a significant role in defining quality of care, consider the provision of medical services a "need" which is essentially non economic.

> "Since the costs involved are mainly dollars, and the benefits, while often probabilistic, nevertheless involve an individual's health and

> sometimes life itself, these trade-offs are fundamentally troubling" (Havighurst & Blumstein, 1975: 13).

Medical professionals find it difficult to incorporate economic factors in their decisions to provide appropriate levels of care. Their notion of quality of medical care is

> "embodied in a professional consensus defining those services which represent appropriate professional intervention to deal adequately with the patient's particular medical condition. Resource limitations which impede need fulfillment are regarded by physicians only with frustration as unjustified constraints... In fact, need appears to be the standard by which 'quality of care' is evaluated: any failure to meet professionally defined needs is ipso facto inadequate quality" Havighurst & Blumstein (1975:26).

In other words, the concept of quality enshrined in the medical belief system, and used by medical professionals, de-emphasizes non-medical, especially macro level, issues in the evaluation of health care performance.

The impact of socialization into the medical profession is so strong that it is difficult to make physicians pay attention to the economic aspects of the delivery of care. Schroeder et al. (1984) found that two most frequently suggested educational methods of changing physician behavior--lecture and audit with feedback--did not have any impact on patterns of practice. They, however, suggested that these educational methods may be more successful if they are seen to have the approval of powerful authority figures in the medical profession. In other words, physicians may look at issues outside scientific medicine if the educational methods become part of the socialization, rather than be used as ad hoc interventions to change behavior.

The description provided above suggests that all members of the medical and allied professions, who comprise the Medical Institution, share a 'monolithic' set of values and beliefs which they acquire through training and socialization. This view is not entirely true. There are diverse segments that may share some

values and beliefs and not others. The differences in values and beliefs among different groups within the medical profession, e.g., community based practitioners and academic-based physicians, is well documented (Greer, 1986). In fact, some of the strongest proponents of macro criteria for evaluations of health systems are doctors who have specialized in epidemiology and public health (Havighurst & Blumstein, 1975). Also, several physicians, trained in other areas, have also accepted the importance of economic issues in the evaluation of health systems and are active protagonists of change (Scott, 1983). However, except for these few exceptions, the large majority of medical professionals espouse the core beliefs of the Medical Institution.

Alford (1975) argues that self-interest may play a large role in preventing medical professionals from questioning the values and beliefs at the core of the medical institution. In addition to sharing similar values and beliefs, members of the medical institution have common material and non-material interests in the continued dominance of the medical institution. It is to the benefit of all medical and allied professionals that the medical institution maintain its monopoly over health related activity. In other words,

> "there is a high probability that elites (within the professions) will take a public position consistent with the interests of their organization. Career incentives probably require that collective myths be publicly stated, even if there is considerable private cynicism or disbelief" (Alford, 1975 :21).

This does not suggest that there are no public differences among the various groups that constitute the medical profession.

> "Battles occur, to be sure between segments of those who possess such a monopoly, but these are conflicts of interest groups within a dominant structural interest. None of the conflicts of this type challenges the principle of professional monopoly--just who is going to have it" (Alford, 1975: 14).

In other words, the conflicts among different professional groups, e.g., differences over job descriptions and decision making authority between nurses and physicians, do not undermine the position of the medical institution. They are negotiations to re-allocate the benefits accrued from a professional monopoly within the bounds of the medical institution.

In summary, the medical institution emphasizes life enhancing values. However, the role and mission of health care professionals causes them to focus on micro issues rather on macro issues. In a sense the medical belief system under-emphasizes or neglects the core values and beliefs that constitute the administrative belief system that is discussed next.

4.2.2. Administrative Institution

The Administrative Institution consists of the norms and rules associated with management and the control of work. The beliefs and values of its major constituents, health administrators and government officials, primarily emphasize the importance of non-medical aspects of the delivery of health care. The values direct attention towards financing, accounting and planning in hospitals. In Rushing's (1984) terms, the administrative belief system stresses 'economic' values. It is concerned with cost-efficiency and cost-effectiveness of services, which focus attention towards cost containment and coordination in health care systems.

While people who espouse administrative beliefs do not reject the core values and beliefs of the medical institution, they are often at odds with medical professionals over the focus of health care (Scott, 1983b). The provision of health care is still important, but health care is considered effective if it is provided within certain fiscal constraints (Mills, 1989). In other words, concern for the individual patient needs is balanced by the needs and preferences of the rest of

society. Unlike medical professionals who focus on individual patient needs, administrators and planners are likely to be concerned with the economic and social impact of meeting those individual needs. They will be interested in examining variations in the per capita rates in treatment procedures provided, e.g., the relationship between health or socioeconomic characteristics of a population and surgical rates (Roos & Roos, 1982) or the relationship between physician supply and surgical rates (Wennberg, Barnes & Zubkoff, 1982).

The absence of any formal or informal relationship between administrators and individual patients, permits administrators to utilize a different perspective while evaluating health care performance. Persons who espouse administrative beliefs

> are likely to stress macro care criteria that focus on the characteristics of populations of patients. Macro care principles are those that address the overall shape of the distribution of services or outcomes or that specify minimum or modal levels of service (Scott, 1983b: 111).

Macro criteria, used by administrators, are not aggregated versions of micro criteria preferred by medical professionals (Havighurst & Blumstein, 1975). They represent another, often conflicting, basis for evaluating health systems.

Concern over the cost of health care and use of macro criteria lead to a focus on wellness rather than illness (Havighurst & Blumstein, 1975). As a consequence, even when administrators address medical issues they are more likely to be concerned with preventive measures than with treatment or cure. This draws attention to non-medical issues like poverty levels, work conditions, housing conditions, and public health issues which are either neglected or under-emphasized in the medical institution.

Just as in the case of the medical institution, there are sub-groups within the administrative institution (Alford, 1975; Riska, 1981). Alford (1975) differentiated

between groups seeking changes in the health care system based on market or bureaucratic models. While advocates of the market model do not question the dominance of the medical profession, the people using the bureaucratic model challenge that dominance. Most recent changes to the health system may be viewed as some combination of bureaucratic and market models.

Further, Scott (1977) suggested that there may be a subtle difference in the administrative criteria used by administrators within hospitals and those in regulatory agencies. The role of hospital administrators forces them to focus on the population of patients served by the hospital, and not on the health status of a community. On the other hand people administering or regulating a set of hospitals evaluate the effectiveness of a hospital in terms of its impact on the health of the general population. These differences are evident in Ost & Antweiler's (1986) analysis of the adoption of CAT scan technology in some hospitals.

However, just as in the case of the medical institution, despite subtle differences, all groups that are part of the administrative institution have reasons to work together.

> "Hospital administrators, medical schools, government health planners, and public health agencies and researchers constitute interest groups which share--over and above their varied predispositions to act in concert vis-à-vis new government regulatory or funding programs--a common relationship to the underlying changes in the technology and organization of health care" (Alford, 1975:15)

Although, the various groups that can be identified with the administrative belief system often compete for resources and power within the health care arena,

> "they share an interest in maintaining and extending the control of their organization over the work of (medical) professionals whose activities are key to the achievement of organizational goals" (Alford, 1975:192).

In other words, members of the administrative institution have at least one common interest--the need to decrease the control of the medical institution on health care systems. This common interest leads to coordination among the various groups within the administrative institution.

In summary the administrative institution is concerned with the non-medical, mainly economic and social, aspects of the delivery of health care. The nature of the administrative role in the health system, draws the attention to macro rather than micro issues.

Table 4.1 provides a comparison between the characteristics of the two institutions described above. The descriptions in Table 4.1 may be seen as representing ideal types that facilitate the comparison of distinctive features of two dominant institutions in health care, rather than an exact description of beliefs and values held by a specific individual or profession. It is suggested that conventions and norms in the health care arena may be categorized as medical or administrative depending on how closely they match the characteristics described in the table. It was suggested in the discussions above, that medical professionals are more likely to use measures of performance that conform to the norms of the medical institution, while administrators are likely to use measures that are derived from the administrative institution. As discussed above, not all medical professionals hold values and beliefs identify with the medical institution, and a few even espouse some administrative values and beliefs. Similarly, not all health administrators identify with the characteristics of the administrative institution listed in the table.

Table 4.1

A Comparison of the Characteristics of the Medical Institution and the Administrative Institution

Medical Institution	Administrative Institution
1. Based on the norms of scientific medicine	1. Based on market and/or bureaucratic principles
2. Emphasis on life-enhancing values	2. Emphasis on economic values
3. Focus on individual patients	3. Focus on a population of patients
4. Focus on illness rather than wellness	4. Focus on wellness rather than illness
5. Use of micro criteria to evaluate health care performance	5. Use of macro criteria to evaluate health care performance
6. Relatively low emphasis on the impact of non-medical factors on health status	6. Relatively high emphasis on the impact of non-medical factors on health status

In this section, it was argued that there are two dominant institutions in health care, each underpinned by a different belief system. In the next section, it will be shown that measures of performance used in hospitals reflect the values and beliefs of one of these belief systems.

4.3. Measures of Hospital Performance

In Chapter 2, there was a discussion of three types of measures of performance. In this section, a discussion on how they apply to the health care arena is presented. The difference between measures underpinned by the values and beliefs of the medical and administrative institutions will also be examined.

In Section 2.1, it was suggested that there is a lack of agreement over definitions of performance in the organizational literature. This lack of agreement is also evident in the health care literature. He cited a study, similar to Campbell's (1977) study, that found that twenty-four 'administrators' suggested eighty different criteria for evaluating patient care. Like Campbell (1977), the study concluded that it was unlikely that there will ever be a single comprehensive criterion by which to measure quality of patient care.

Donabedian (1969) also suggested that different groups of people--clients, providers, administrators, planners, and economists--may have different conceptions of the relative importance of various components of health care and the criteria of 'goodness'. These differences between physicians, administrators and patients may be significant. This is consistent with the consensus in the organization literature that suggests that different constituencies conceptualize and evaluate organizations differently.

In a more recent review of the health care literature on quality in health care, Donabedian (1980) concluded that, despite the confusion in the literature and

practice over ways of measuring hospital performance, his recommendation to evaluate hospital performance based on structures, processes, and outcomes, that he first suggested in the 1960s and later refined, was still the most valid and useful one available.

4.3.1. Outcome Measures.

Measures of hospital performance based on outcomes focus attention on patients (DesHarnais et. al., 1990; Donabedian, 1980; Scott, 1983; Stephen, 1988; Omachonu, 1990). When based on the medical beliefs, they assess the extent to which the desired medical changes in the status of a patient are achieved. Adequate performance according to such a measure is that the patient gets well or does not get sicker more quickly than he or she would have without medical intervention (Omachonu, 1990). Examples of measures based on health status include clinical measures of patient mortality, and morbidity (Lohr, 1988). There have been recent attempts (e.g., DesHarnais et al., 1990) to improve the accuracy of these measures by developing risk-adjusted measures of mortality, re-admissions and complications.

Measures based on the administrative belief system assess the non-clinical aspects of health care. Examples of such outcome measures include measures of cost per patient stay, and length of patient stay. These measures assess the non-clinical efficiency of the care provided. They serve the administrative purpose of assessing cost-effectiveness of services provided and maintaining financial viability of the hospital. However, unlike medical outcome measures, these administrative measures focus on a population of patients.

Sometimes the classification of a particular measure as an administrative or medical measure may be problematic. For example, measures of patient satisfaction acquired from patient surveys are used as outcome measures

(Donabedian, 1969; Cleary & McNeil, 1988). They include items on the core primary services or 'hard' medical functions of a hospital, and items on secondary services or soft functions of a hospital that includes food services and cleaning services (Omachonu, 1990). Since a patient normally cannot evaluate medical performance, the satisfaction scores can be interpreted as serving an administrative purpose. However, physicians often use these scores to modify the delivery of care and hence may be seen to serve a medical purpose.

As discussed in Chapter 2, measures based on outcomes alone are considered incomplete. They do not accommodate factors like

> "variations in the type of patients treated; the severity of the patients' principle diagnoses; the type and complexity of the patient's co-morbidities; or the social and financial conditions of the patients' (DesHarnais et al., 1990: 1128)

that can influence the outcomes--both medical and administrative. In other words, a patient may not experience a desired change in health status despite appropriate medical intervention (Donabedian, 1980; Wyszewianski, 1988). This can also influence the length of stay and cost of treatment. Therefore, existing outcome measures are not reliable measures of hospital performance. Measures based on process and structure are used as surrogate measures of performance.

4.3.2. Process Measures.

An evaluation using performance measures based on processes consists of determining the degree of conformity to established procedures. Process measures based on medical beliefs assess the extent to which a patient's stay met the standard medical procedures for an ailment. There are established standard procedures for most ailments treated by hospitals. They specify the steps to be taken in order to restore the patient to normal functioning. A hospital is deemed effective if it conforms to the standard requirement even if the outcome measures

indicate otherwise. External and internal audits are conducted to ensure that institutionalized practices are followed. For example,

> "physicians may be evaluated on the appropriateness of the laboratory tests ordered or the completeness of the medical history taken... (or) hospitals may be evaluated on their autopsy rate or the number of cases reviewed by the tissue committee" (Scott, 1977: 82).

The ratings influence the accreditation from bodies and agencies that represent the medical institution. If a hospital does not meet the standards, it may lose its accreditation status.

Donabedian (1969) classified the methods of process appraisal of medical performance into four groups: (i) Certification, (ii) Statistical display and analysis of patterns of care, (iii) Case review, and (iv) Appraisal of data used for clinical decision making. Certification, as described in Donabedian (1969), refers to a program in which a senior physician reviews the care provided to a patient and certifies its appropriateness. Statistical display and analysis of patterns of care involves accumulation and summarization of information relevant to the treatment of patients. The summarized information is evaluated to identify deviations from the average of a group of physicians or institutions. Case review is an audit of hospital procedures followed in a specific case in comparison to a set of 'hypothetical' appropriate procedures. Appraisal of data used for clinical decisions involves assessing the completeness and veracity of the information on which clinical and therapeutic decisions are made.

Process measures of performance can also be based on administrative beliefs. Scott (1977) differentiated between measures that assess quality of activity from those that assess quantity of activities performed. The process measures based on medical beliefs, discussed above, would be categorized as measures of quality, where quality is determined by a consensus among medical

professionals. What Scott (1977) labels as 'quantity measures' are measures based on administrative beliefs. Such measures within a hospital would consist of items like the number of patients treated and the number of follow-up visits by patients. They also include measures that assess the utilization of equipment and supplies (Cheng, 1992). If these measures are systematically collected, they provide indicators that could be used to improve administrative outcomes.

4.3.3. Structure Measures.

Structure based measures refer to organizational features that are presumed to have an impact on an organization's performance. They include the evaluation of characteristics of organizational members, and technical and administrative processes that support core activities (Donabedian, 1969). In the case of hospitals, these measures focus on

> "the adequacy of facilities and equipment, the qualifications of medical staff as reflected in training and certification, and the adequacy of administrative support structures and fiscal arrangements" (Scott, 1977: 84).

Put differently, these measures are aimed at ensuring that the hospital has the right kind of structure, equipment, and appropriate personnel to meet the role it has defined for itself (Omachonu, 1990). These measures are used for review and accrediting purposes. It is expected that a hospital that is rated high on the structural measures will also be able to deliver good quality care.

As indicated in the quote above, structural measures may be based on medical or administrative criteria. The standards to evaluate the adequacy of medical equipment and the adequacy of qualified staff are based on the requirements of medicine. On the other hand, adequacy of administrative support and fiscal arrangements are based on administrative principles. These focus on the

ability of the hospital to meet non-medical requirements of insurance and/or funding agencies.

As in the case of process measures, structure measures that reflect administrative beliefs have also been used. Fottler (1987) suggests that measures of size, for-profit status, degree of specialization, and personnel staffing ratios are some structural measures used to evaluate hospitals. These measures do not evaluate the ability of a hospital to meet the requirements of medicine. Rather they focus on the ability of a hospital to provide hospital services in an efficient manner.

In this section, it was shown that measures of performance in hospitals may be based on the evaluation of outcomes, processes or structure. For each type of measure, there differences between measures underpinned by the medical belief system and those underpinned by the administrative belief system.

4.4. Hospital Belief Systems

Hospitals, like any other organization, consist of internal constituencies. As suggested in Chapter 2, members of each constituency share a common set of values, beliefs and interests. In a hospital, the two most dominant internal constituencies are the group of personnel that provide health care and those that perform the administrative duties (Meyer, 1984; Wahn, 1987; Ritzer & Walczak, 1988; Young & Saltman, 1985). There are further sub-groups (e.g., doctors and nurses) within these broad categories and often there are overlaps in administrative and functional areas. However, as concluded by Young and Saltman (1985) in their review of the literature and their own study, despite the existence of multiple groups and shifts in power, the medical staff and the administrators are still the two most dominant constituencies. Therefore, the focus of this study was on the

differences in values, beliefs and interest of the members of these two constituencies. The beliefs of these two constituencies come together to form a hospital belief system.

Due to socialization outside the confines of a hospital, professional groups develop different perceptions about the goals of a hospital and norms to measure its performance (Bucher & Stelling, 1969; Stephen, 1988; Ethridge, 1990). These different perceptions are further reinforced by the roles they have within hospitals. Members of the medical profession are more likely to use the medical belief system, while health care administrators are likely to utilize the administrative belief system (Meyer, 1984; Stephen, 1988; Omachonu, 1990). Since a hospital belief system reflects the beliefs and values of the dominant coalition, there will be variations depending on the balance of power between medical professionals and health care administrators.

According to Levine & White (1961), health care organizations define their role in the health care arena "in terms of (1) disease covered, (2) population served, and (3) services rendered" (1961: 597). The choice of role of a hospital is a reflection of the dominant beliefs within the organization. A hospital may choose to provide treatment for a broad range of common diseases to a local population or may opt to offer a narrow range of specialized treatments for large regions. Similarly some hospitals may be involved in teaching and/or research while others may not be so involved. The ability of a hospital to 'choose' its role is moderated by it's ability to negotiate it's chosen role with health care regulators. The relationship between a hospitals role and it's belief system will be discussed in more detail in Chapter 6 when the two sites selected for the study are described.

A hospital, by defining its role, also determines the nature of external pressures that it experiences. Depending on the role it stakes out for itself, a hospital, to some extent, decides the institutional norms it wishes to follow and

those that it will neglect (D'Aunno et al, 1991). Under 'normal' circumstances a hospital's dominant beliefs mesh with the institutional beliefs that underpin its external evaluation. However, when there are changes in institutional pressures hospitals have to react to re-establish a new equilibrium.

As discussed in Chapter 3, there have been changes in the institutional pressures experienced by hospitals. The next section examines some of the possible responses by hospitals.

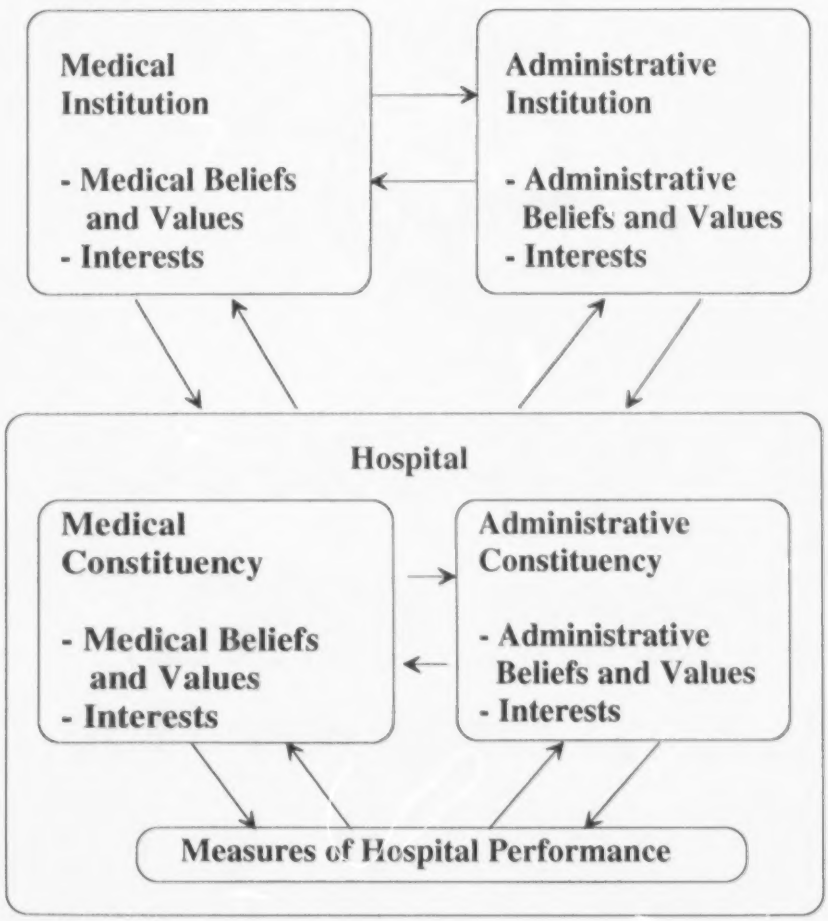
4.5. Impact of Changes in Institutional Pressures on Measures of Hospital Performance

In Chapter 2, it was argued the measures of performance used in an organization are influenced by the values, beliefs, and interests of internal and external constituencies. The interaction among belief systems and measures of performance was pictorially shown in Figure 2.2. Since this study focuses on two dominant internal constituencies and two institutions of a hospital, Figure 2.2 can be adapted for a hospital as shown in Figure 4.1.

The figure shows a hospital that is influenced by two institutions. The two institutions, labeled Medical Institution and Administrative Institution, are respectively underpinned by the Medical Belief System and the Administrative Belief System. The arrows between the two institutions represent the fact that the beliefs and values, and hence rules and norms of each institution, is influenced by those of the other. As discussed in Chapter 2, institutions are sustained when society accepts their norms as legitimate, and hence an institution is forced to defend itself from challenges from other institutions. Although it was not the focus of the study, this suggests that as a result of the gain in legitimacy of the

Figure 4.1

Interaction among Internal and External Beliefs, Values and Interests of a Hospital and Measures of Hospital Performance



administrative institution, the medical institution will have to make changes in response to it.

The two arrows between the institutions and the hospital indicate that institutions are also influenced by the hospitals on which they impose constraints. Each institution exerts pressures on hospitals to conform to its own norms. However, these norms are not independent of influences from the hospitals. Oftentimes, the agents of the institution who develop and promote the norms are also members of hospitals. As a consequence, the perspective of their hospital is likely to be reflected in the institutional norms. At other times, powerful hospitals can apply pressure on institutions to change norms that are not favorable to them. The institutions create an arena in which the hospital's constituencies try to establish measures of performance that conform to their beliefs and values, and meet their interests. Figure 4.1 shows that the two dominant constituencies in a hospital also espouse the medical belief system and administrative belief system respectively. Their interactions are represented by the arrows between the constituencies and the measures of performance. As discussed in Section 2.4, the power, and hence ability, of the two constituencies to establish measures of performance that conform to their own perspectives, is influenced by the institutions. For example, the administrative constituency is likely to gain in power as a result of new administrative pressures, and is more likely to be able to promote its measures of performance than before.

In the past, as discussed in Section 4.2, most hospital systems were structured around the division of labor as specified by occupational groups i.e. they were occupationally structured (Scott, 1983b). However, hospitals are experiencing an increase in external pressures to become more cost effective, i.e., to become administratively structured. As suggested in Figure 4.1., changes in external pressures should result in changes within the hospital. The focus of this

study is on the impact of external changes on measures of performance within hospitals. However, changes to the measures cannot be isolated from other responses by the hospitals.

In this section, propositions that describe some expected changes are developed based on the discussion of strategic responses in Chapter 2. When faced with new institutional pressures that do not fit with its current belief system, a hospital can choose response tactics that can be categorized into one or more of five strategic responses--manipulation, defiance, avoidance, compromise, and acquiescence-- which go from active resistance in the case of manipulation to passive conformity in the case of acquiescence (Oliver, 1991). As explained in Section 2.4, these responses are also influenced by the hospitals internal constituencies.

Murray, Jick and Bradshaw (1983) described some of the external tactics used by hospitals in Ontario in response to budget cuts imposed by the provincial government. The tactics include (i) direct appeals through formal channels for more funding (ii) direct appeals to ministers or elected politicians to increase funds and (iii) indirect appeals through formal and informal coalitions, and through the media. These tactics were aimed at preventing the government from going ahead with its proposed budget cuts and may be seen as active resistance to external pressures to become more cost efficient.

Budget cuts are only one component of the pressures being experienced by hospitals in Alberta. As described in Chapter 3, new government initiatives are bringing to bear a new set of pressures which go beyond achieving cost efficiency. They involve a fundamental rethinking in the way hospital care is delivered because of the application of administrative principles not previously applied to the health system in Alberta. Since the new administrative pressures encroach on areas that were considered the domain of the medical institution, resistance from

those who espouse its values and beliefs will be strongest. As a consequence, if a hospital belief system is dominated by medical beliefs, i.e., it has a dominant medical constituency, it would actively pursue tactics to deter the implementation of new administrative norms. On the other hand, a hospital that does not have a dominant medical constituency is less likely to aggressively oppose the administrative pressures.

> **Proposition 1:** Hospitals that have dominant medical constituencies are more likely to resist external administrative changes than hospitals with weak medical constituencies.

However, not every hospital that has a dominant medical constituency is likely to be able to oppose a change in external norms. As Oliver (1991) argues, the choice of aggressive opposition strategies are based on an assessment by the organization that the negative consequences will be low. A hospital that has a dominant medical constituency but does not have significant legitimacy in its environment, will be reluctant to use active resistance tactics to avoid the negative consequences of failure. On the other hand, a powerful hospital, even if it has a weak medical constituency, may oppose the implementation of new norms if they affect it negatively. In other words, powerful hospitals are more likely to actively oppose external administrative changes than weak hospitals.

> **Proposition 2:** Hospitals that perceive themselves as powerful are more likely to resist external administrative changes than hospitals that perceive themselves as weak.

When the institution applying the new norms is powerful, non-compliance is likely to be detrimental to a hospital's survival. In such situations, even hospitals that oppose the changes are likely to maintain at least 'ceremonial' conformity with institutional norms by making external changes even if they do not make internal changes. Hospitals may continue to use evaluation criteria based on the medical

belief system, but make references to measures that suggest administrative beliefs in public documents. Since all hospitals in Alberta are almost entirely dependent on the government for funding, it is expected that all hospitals will make changes to their public documents even as they avoid real internal changes.

> **Proposition 3**: Hospitals will portray greater compliance with administrative beliefs and values in public documents even if they avoid internal changes.

Hospitals may respond by acquiescence and compromise. This will result in changes in the measures used in the public documents as suggested above, but also result in changes in measures used within the organization. Hospitals that do not perceive themselves as powerful are less likely to oppose new institutional pressures as suggested in Proposition 2, and are also most likely to conform with new norms. In other words, greater changes are expected in measures used within weaker hospitals than within powerful hospitals.

> **Proposition 4:** Changes in measures of performance in weak hospitals will be greater than in powerful hospitals.

Just as the extent to which a hospital aggressively opposes changes in government policy is dependent on the composition of its internal constituencies, changes in constructs are also moderated by it. Bradshaw-Camball and Murray (1991) describe the tactics through which hospital administrators create 'illusions' in order to implement cost cutting measures in hospitals. The illusions may be seen as internal negotiating ploys to convince opponents of the changes of their necessity. Applying the same logic, it is argued that hospital administrators will have to negotiate internal changes in measures of performance with those who oppose them. Changes that conflict with the evaluation by the medical constituency of a hospital will be difficult to implement if it is powerful. In other words, one would expect a greater degree of change in measures of performance

in a hospital that has a dominant administrative constituency rather than a dominant medical constituency.

> **Proposition 5**: Changes in measures of performance in hospitals dominated by the administrative constituency will be more pronounced than in other hospitals.

As the emphasis on administrative issues in external evaluation of health care organizations increases, there may be change in the relative power of different constituencies. Members with administrative skills who can handle the new uncertainties will gain in power (Hickson et al, 1971; Pfeffer, 1981; Salancik & Pfeffer, 1977). In other words, as the importance of administrative beliefs increases, there will be a shift in the composition of the dominant coalition to reflect this - there will be an increase in the power of the administrative constituency.

> **Proposition 6**: With an increase in external administrative pressures, there will be an increase in the power of the administrative constituency in a hospital.

When organizations are faced with changing institutional environments, they have to make choices between the conflicting demands that the situation presents. In addition to managing the external environment, they have to manage their organization belief system. Organizations are likely to re-emphasize the values and beliefs of the institution that most favors them (D'Aunno et al, 1991). As Starbuck, Hedberg & Greve (1978) and Miller (1990) suggest, organizations that have been effective in the past will re-emphasize the old beliefs while neglecting the impact of the new institutional pressures. In other words, hospitals that have acquired their legitimacy from conforming to the requirements of the medical belief system, are likely to attempt to re-emphasize those beliefs among thei members.

Proposition 7a: Hospitals that are dominated by medical constituency will increase efforts to revive the medical beliefs within the hospital.

Proposition 7b: Hospitals that are dominated by the administrative constituency will introduce efforts to enhance administrative beliefs within the hospital.

4.6. Conclusion

In this chapter, the general framework developed in Chapter 2 was adapted for the context of this study. It was suggested that although hospitals experience technical pressures based on scientific medicine, these pressures may be framed as emerging from institutions because of the processes through which medical norms are developed and adopted by the medical profession. In addition to pressures from the Medical Institution, hospitals experience pressures from the Administrative Institution. Figure 4.1 shows the framework that describes the interaction among the two external institutions and the two dominant constituencies in a hospital. Seven propositions that describe the expected hospital responses, as a result of changes in institutional pressures, were also presented.

CHAPTER FIVE

RESEARCH METHODOLOGY

The purpose of this chapter is to describe the research methodology used for the study. It presents an analysis of the nature of inquiry conducted and the general constraints within which this study had to be designed. It explains the appropriateness of the case-study methodology in light of the analysis. It then describes the basis for selection of research sites, data collection processes and data sources. Finally, it describes the data analysis procedures that were used.

5.1. Choice of Research Strategy

As indicated in Chapter 2, the literature on organizational performance is fragmented and contradictory. Not only is there a lack of agreement over definitions of organizational performance, there is no consensus over what constitutes effective performance. Hence, the literature review helped the researcher understand the issues to be addressed while examining changes in measures of hospital performance, but did not provide a very strong basis for developing a structured hypothesis testing design[1].

Further, most of the health care literature that was reviewed was based on the health care system in the U.S. Since there are some significant differences between the health care systems in Canada and the U.S., direct application of U.S. based literature to Canada was considered inappropriate. Therefore, a method which permits flexibility during the data collection and analysis to adapt the research to the emerging evidence was thought to be appropriate for the situation.

Also, the changes in government policy were quite recent and hospitals were still in the process of developing their responses as the data collection for the study was to be conducted. As described in Chapter 3, the new government policies were qualitatively different from those in the past, so the changes in hospitals were not expected to occur immediately. Everyone involved in the health care system, including government officials, health care administrators, physicians, and nurses, were dealing with unique changes. Hence it was expected that their responses, and changes to actual hospital systems, would not be as easy to detect and understand as in a routine change. In other words, it was not expected that individuals in the health care system would themselves be aware of all current and potential changes that were to occur. A study design which

[1] The propositions developed in Chapter 4 were used to guide initial data collection and are not seen as hypotheses.

provided the opportunity to follow the changes through interviews with people participating in the process of change was thought to be appropriate.

Most of the key factors that are influencing the health care system in Alberta are difficult to measure in an objective fashion. Since there was a lack of academic literature based on that system, the researcher did not have a firm basis to ascertain reliable operationalizations of the factors/variables that were to be examined. Hence, it was considered necessary to gather rich information from participants in order to understand the phenomenon.

For the reasons discussed above, the case study methodology was considered appropriate. According to Yin (1984), a research strategy is selected based on three conditions :-

> (a) the type of research question posed, (b) the extent of control an investigator has over actual behavioral events, and (c) the degree of focus on contemporary as opposed to historical events (Yin, 1984: 16).

The case study methodology is recommended when "(a) 'how' or 'why' question is being asked about a contemporary set of events, over which the investigator has little or no control" (Yin, 1984: 20). The thrust of the inquiry of the current study can best be described in terms of 'how' and 'why' questions like

(i) How do changes in external institutions influence the organization?

(ii) How do these changes influence definitions of performance in organizations?

(iii) Why do similar changes in external institutions have different influences on organizations?

Also, the researcher had no control over the contemporary environmental and organizational processes that were examined. Hence, the case study method was considered suitable.

There is tremendous variation among different studies that have been categorized as case studies. There is no single way to conduct a case study. The case study methodology used for this research followed closely the description provided by Yin (1984). In addition, the design and analysis followed suggestions by Miles & Huberman (1984), Eisenhardt (1989), and Elsbach & Sutton (1992). The particular suggestions used will be indicated later in the chapter.

It was suggested above that this study was largely exploratory and the case study methodology was considered suitable for the study. However an exploratory study using the case method does not imply that a researcher begins a study without a conceptual framework. Yin (1984) and Miles and Huberman (1984) suggest that a conceptual framework is essential for every case study. It should explain in broad terms the issues to be examined - the key factors or variables and the presumed relationships among them.

Although, the literature on organizational performance is fragmented and there is a lack of academic literature on the health care system in Alberta, there was sufficient material to develop a broad conceptual framework to guide the study. The conceptual framework used in this study was discussed in Chapter 4. The framework presented in Figure 4.1 and the seven propositions presented provided the starting point for the selection of research sites, data collection and analysis.

5.2. Selection of Research Sites

The conceptual framework and propositions suggested in Chapter 4, and the research questions as framed above leave open several choices as to how the case study may be designed. One such choice is related to the selection of the number and type of research sites.

One hospital could be selected for a single case design. A single case design is appropriate when the case is in some way special: (i) When the theory guiding the case study is well established, then a single case can be used as a critical case to confirm, challenge or extend the theory. (ii) If a case is known a priori to be unique or extreme then a single case study provides information that is linked to its unique characteristics. (iii) If a single case provides observations and insights not otherwise available, then it may be considered revelatory and a single case design may be selected. Since, the phenomena being examined did not fit the above conditions which several case researchers (e.g., Eisenhardt, 1989; Miles & Huberman, 1984; Yin, 1984) consider essential for selection of a single case design, a multiple case design was selected.

The multiple case design has certain advantages over a single case design. Evidence can be compared across cases to determine causality or explain a link between characteristics of a case and a predicted outcome. However, in order to be able to make a comparison the sites have to be appropriately selected. In a typical large sample statistical study, sites are selected randomly to mitigate the effect of biases from factors/variables not included in the study. However, in case studies each case should be selected, not randomly, but for a particular rationale (Eisenhardt, 1989; Yin, 1984).

Selection of sites should be done based on the conceptual framework (Eisenhardt, 1989; Miles & Huberman, 1984; Yin , 1984). Propositions based on the framework may indicate a causal relationship between certain characteristics of the cases and the phenomena being examined. These relationships should guide the selection of sites. Yin (1984) suggests that

> (e)ach case must be carefully selected so that it either (a) predicts similar results (a literal replication) or (b) produces contrary results but for predictable reasons (a theoretical replication) (Yin, 1984:48).

Literal replication suggests that the same causal relationship is expected to be revealed in each case selected. If the propositions suggest a link between certain characteristics of a case and a particular outcome, cases that are similar on those characteristics may be selected. If similar outcomes are produced at all sites, then a relationship between the characteristics used to match the cases and the predicted outcome can be established. Further, since the sites were selected based on a given rationale the relationship may be generalizable to other situations with similar characteristics.

The basis for selecting sites for theoretical replication is different. Cases are selected such that they are different on certain characteristics that have a potential to influence the phenomena being studied. When they reveal dissimilar outcomes then the differences can be attributed to the variations on the characteristics used to select the sites. Although the outcomes are different, they are different for known reasons and as such can be considered replications. Once again, the relationships that are established can be generalized.

Under ideal conditions, one should use a combination of literal and theoretical site selection in order to produce robust theory. However, time and resource requirements associated with each additional case are so high that several theorists (e.g., Eisenhardt, 1989; Pettigrew, 1989) suggest that the number of cases should be kept to a minimum necessary. According to Eisenhardt (1989)

> "given the limited number of cases which can usually be studied, it makes sense to choose cases such as extreme situations and polar types in which the process of interest is "transparently observable" (Eisenhardt, 1989:537)

The selection of cases defines the limits to which the findings can be generalized, but if the sites are properly chosen broad generalization can be made on the basis of the characteristics used to select the sites.

Time and resource constraints led to a decision to keep the number of sites to a minimum. These somewhat intertwined constraints ruled out the possibility of a large number of sites. It was decided by the researcher that two sites that were polar opposites would be selected as sites. The details of the selection of the two sites is described below.

The literature on hospitals suggested that there were significant differences among hospitals on the basis of size, and involvement with teaching and research (Fennell, 1982; Greer, 1986; Ost & Antweiler, 1986). Hospitals that vary on these characteristics have been shown to differ in terms of adoption of new medical technology and procedures (Greer, 1986). There are differences in the kind of people hospitals attract on their boards based on their size, their association with teaching and research (Eakin, 1987). Researchers have documented differences in behavior of medical staff based on these hospital characteristics (Greer, 1986).

The literature review presented in Chapters 2 and 4 had suggested that power of an organization was a basis to expect different responses to institutional processes. Size, and involvement with teaching and research are considered sources of power in the health care arena (Eakin, 1987). Further, the power of a medical constituency in a hospital involved in teaching and research is significantly greater that its power in a non-teaching, non-research hospital. Hence, it was decided that size, teaching and research be used as characteristics to select the sites.

In order to make it feasible for the researcher to make frequent visits to the sites to conduct interviews and collect data, it was decided that the sites should be within reasonable driving distance from Edmonton or be in Edmonton. This restriction could potentially have weakened the research design by limiting the site selection process. However, it did not have any adverse affect on site selection. As

described below, the sites selected for the study met the theoretical criteria established for their selection.

Two hospital sites that were polar opposites based on size, teaching and research were selected. One hospital is in Edmonton and the other is in a community close to the city. They were selected in order to produce theoretical replications, i.e., contradictory results but for predictable reasons. In addition to meeting the theoretical criteria, they were located such that the researcher could make frequent visits.

5.2.1. Site 1: Hospital A

The first hospital, which will be referred to as Hospital A, is one of the oldest and largest hospitals in the province. It was established as a 15 bed hospital in 1906. It expanded to a 150-bed hospital in 1914. In 1991/92 the hospital had approximately 1000 acute care and long term care beds in operation.

It is one of the many hospitals associated with the local university and by virtue of this association, teaching is an essential and significant portion of its role in the province. The hospital established a formal relationship with the Faculty of Medicine of the local university in 1922. Since then, Hospital A has been involved with teaching for many types of students. In 1991/92 the hospital had 610 medical students and residents, 153 nursing students, and 142 other health-related students.

The hospital's association with the university has also had an influence on its involvement with research. It is considered a premier medical research hospital, and probably the most prominent one in Western Canada. In 1991/92 the hospital was involved in 25 medical research projects and had 118 projects that had been approved in principle.

The large size, affiliation with the university, and hence involvement with teaching and research, has influenced the nature of care provided at the hospital. It

is a general hospital which has a significant focus on high end tertiary and quaternary level services. It is a prominent referral center, and often the only center in Western Canada, for certain critical conditions. It also offers basic primary and secondary level care, that is offered by most hospitals in a community. These services were maintained[2] because of the desire to be a full-service hospital, and also because it facilitates student teaching.

Site 2: Hospital B

Hospital B is a much younger and smaller community hospital. It was established in 1965 and began operating in a 100 bed facility in 1970. In 1992 it moved to a new 200 bed facility, but was expected, by the government, to operate 150 beds.

The hospital does not have any formal arrangements with any university or educational organization, and hence is not involved in formal teaching. It does act as a site for preliminary training for some categories of health care providers, but this is not recognized by the government in its planning and funding for hospitals.

Further, its medical staff is not involved in formal research projects within the hospital's environment nor is research considered part of the hospital's mandate. Some physicians and nurses, however do conduct some internal research projects in order to improve the care provided. However, once again, this does not play any role in the government's understanding of the role of the hospital.

The two sites described above are polar opposites in terms of the criteria used to select them. The differences in hospital belief systems, as a result of the differences mentioned above, will be discussed in Chapter 6.

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[2]Recent changes in government policy is affecting these services.

5.3. Data Sources

Yin (1984) lists six sources of data for case studies: documentation, archival records, interviews, direct observation, participant observation, and physical artifacts. Different sources of data are suitable for different circumstances. The three most important sources of information in this study were interviews, documents and archival records. Interviews were the main source of data. The documents and archival records provided detailed information that was used to corroborate or expand the analysis based on the interviews.

5.3.1 Semi-structured interviews.

Thirty-six people were interviewed. Appendix 2 provides a list of people interviewed by designation. Nineteen were from Hospital A, thirteen from Hospital B, one was the president of a provincial hospital association, one was a senior executive of a long-term care hospital group in Edmonton, and one a senior bureaucrat in Alberta Health. Within each hospital at least three doctors, four nurse managers, and four administrators, all of whom were aware of the impact of changes in government policy and were involved in various capacities in responding to the changes were interviewed. The interviews, which varied in length from thirty-five minutes to over two hours and on average lasted for forty-five minutes, were recorded and transcribed.

In addition to the recorded interviews, the researcher had the opportunity to have informal conversations with the interviewees and others in the hospital system. While these conversations were not treated as formal data for the analysis in Chapter 6 and Chapter 7, they were very helpful in providing clues to the analysis of the interview data. These conversations also led the researcher to raise new issues in the formal interviews.

In compliance with university research regulations, each person that was interviewed was contacted in advance on the telephone in order to schedule a time for the interview. They were always given the option to opt out of the interview if they desired. The purpose of the interview was briefly described over the phone if requested, or in person just prior to the interview. Permission to record the interview was sought before each interview. Further, the interviewees were assured that their identity would not be compromised in any way.

The general interview guide approach (Patton, 1987) was used to conduct the interviews. An outline of the broad topics to be covered in an interview were prepared in advance on an interview guide[3]. Unless something new came up or some immediate clarification was required, the sequence of questions in the guide was maintained. As the interviews progressed, new issues emerged and the researcher was able to reframe questions in a better way, there were changes in the guides used for later interviews. Some examples of changes in the interview guide are discussed in Section 5.5.

In both hospitals, a senior administrator helped in the preliminary selection of people to be interviewed based on their understanding of recent changes in government policy and involvement with the response of their respective organizations. As the interviews progressed, other interviewees were selected based on their ability to provide new information or provide a different interpretation of the same events. In other words, there was an attempt to interview people till there was a probability that new information or new interpretations of relevant processes/events may be available. Since there was reason to believe, as stressed in Chapters 2 and 4, that there could be differences in interpretation by professional training and occupation, interviewees were selected to ensure

[3]A copy of an interview guide is included in Appendix 3

representation from diverse groups: physicians, nurse managers, and senior administrators and managers.

The interview with the senior bureaucrat from Alberta Health provided an understanding of the government's intentions in implementing the changes. It was an opportunity to explore the problems in the health care system, as understood by the government, and examine why it has made the changes that have been made. It also provided information on the nature of opposition from hospitals that the government has had to face during its attempts to implement the changes.

The interview with the president of the provincial hospital association provided an interpretation of a person who had a good grasp of the working of the hospital system and was close to the recent changes and processes, but was not directly involved in the response of either hospital. It is worth mentioning that he had been a senior administrator in Hospital A, then worked for Alberta Health for a short duration, before occupying his current position. His involvement with the health care system in these various capacities, provided him with a comprehensive understanding of the workings of different aspects of the Alberta Health System.

The interview with the senior executive of a hospital group involved in long term care in Edmonton was also revealing. Although, he was not formally associated with either of the hospitals being studied, he had been the president of the association of teaching hospitals, of which Hospital A was a member and Hospital B was not a member. He had also been involved in the early stages of the regionalization program as Director of the Edmonton Regional Health Facilities Planning Council. He was also able to provide a very unique perspective on the changes in the health system.

5.3.2. Documents and Archival Records.

The information acquired during the interviews was triangulated with data accumulated from documents and archival records. Triangulation is the use of multiple methodologies and/or data sources in order to improve the accuracy of the researcher's interpretation of a phenomenon (Jick, 1989; Simmons, 1985).

Simmon's (1985) suggests that information acquired through interviews may be distorted because of several reasons beyond the possibility that the informant may be trying to hide the 'truth'. Firstly, people may interpret the same event differently so the information acquired reflects the view of people interviewed, which may be different from the interpretations of others. Secondly, people may even change their interpretation of an event with the passage of time and the intervention of other events. In other words, interview data is also time sensitive. Thirdly, distortions in reporting interview data may occur because of "the interviewer's cognitive limitations and the dynamics of the relationship between the interviewer and informant" (Simmons, 1985:290).

These limitations were addressed by selecting interviewees such that multiple perspectives were available and through the use of documents and archival data. Although interviews were the prime sources of data, information from documents and archival records was used to validate or expand the information accumulated during the interviews. Appendix 4 provides a list of the documents and archival records used for the study.

Newspaper articles were used extensively during the early stages of the formulation of the study. Information from these articles provided a brief understanding of the changes in government policy. No formal analysis of newspaper articles was conducted at this stage. However, informal, but systematic, examination of the articles helped the researcher identify some of the key government policy changes in the health arena.

Government documents that explained the purpose of the new policies, the schedule for their implementation, and expected impacts were used to understand the government's interpretation for its recent actions. Most of these documents were acquired during the interview process, when the researcher met with interviewees. Some of these documents were acquired from Alberta Health, while others were made available by the hospitals.

Hospital A had allocated substantial personnel and resources towards understanding and responding to the recent government changes. Some of their correspondence with the government, communication within the hospital, and reports on specific issues were made available to the researcher. Information on the changes in nature of activity of the medical records division which accumulated hospital data for internal purposes were also acquired.

Hospital A has an internal newspaper which, among other things, reports on changes in government policy and its impact on the hospital. Oftentimes it included interviews with administrators, physicians and others on their assessment of the current situation and future trends. The researcher received regular subscriptions of the paper. Copies of relevant articles from old issues were also obtained.

In addition to internal documents and internal newspapers, annual reports from the year 1988 onwards were used. Reports of the hospital foundation and it's campaign brochures were also used as data sources.

Documents available from Hospital B were comparatively few. Hospital B had not devoted significant resources and time to developing formal reports. However, copies of new audit reporting forms, and a new form initiated by the medical records division for physicians to complete along with other medical charts were acquired.

Hospital B does not have an internal newspaper, although it intends to start one. Further, it does not publish formal annual reports, and its foundation is yet to publish a report. However, the hospital has on two occasions, in 1986 and 1992, produced 'reports for the community' which were acquired from the hospital. It has also placed inserts in local newspapers communicating its move to a newly built facility, and publicizing the hospital's new capabilities. A copy of the insert was also acquired.

Background information about each organization was acquired from two unpublished case studies that had separately researched the two selected sites.

5.4. Data Analysis

The study progressed through an iterative process moving back and forth between data collection and analysis, relevant literature, and emerging propositions. The first phase involved analysis of newspaper articles indicating significant shifts in provincial government policy towards health. Following this, an extensive literature review, as presented in the earlier chapters, was conducted to understand the issues related to definitions of performance, institutional theory, and health care. A preliminary framework, discussed in Chapter 4, to guide further data collection was developed. This framework provided the logic for the selection of the two dissimilar organizations as sites in order to produce theoretical replications.

As the interviews progressed, attention was drawn to other issues and pertinent literature, which led to changes in the interview guide for members interviewed later. For example, based on the early framework, the researcher went into the data collection process assuming that hospitals regularly evaluated their performance in terms of medical outcomes. The interview guide was prepared in order to lead into discussions of the increase in economic based measures as a

result of new external pressures. However, the early interviews indicated that evaluation of performance, either medical or administrative, had been largely neglected in the past. This led to changes in interview guides, used for later interviews, to determine why that was the case.

Another example of change in the interview guide was the inclusion of questions about the legitimacy of healing practices outside scientific medicine. This change was triggered by an interview with a nurse manager in Hospital A who suggested that there was an increased acceptance of 'non-scientific' practices within hospitals. Questions were included to determine whether there was a link between the economic pressures on health systems, the decline in the medical institution and the increased legitimacy of non-scientific medicine.

The next section describes the analysis of interview data after all the interviews had been transcribed.

5.4.1. Analysis of Interview Data.

After all the interviews had been transcribed, data files for Ethnograph were created. Ethnograph is a software package designed to facilitate the analysis of text data without intruding into the interpretive aspects of analysis. The software speeds the analysis by eliminating mechanical processes like cutting and pasting involved when hard copies of text are analyzed. Coding has to be done 'manually' as done with hard copies. However, once the primary or first level codes are developed, Ethnograph facilitates the next stage of pattern matching and explanation building, replacing time consuming cutting and pasting with a few simple commands.

Ethnograph was used to convert raw data files into numbered text files. Hard copies of the text files were read and re-read to develop coding categories (Bogdan & Bilken, 1982). As suggested by Yin (1984) and Miles & Huberman

(1984), the coding scheme was informed by theory. The initial codes were based on attempts to operationalize dimensions/factors present in the propositions presented in Chapter 4. Other codes were added as patterns developed when the interviews were read and re-read. The list of codes used is provided in Appendix 5.

The first step in the coding process was the same as if Ethnograph had not been used. Just as in manual coding, a segment of the text, when it referred to issues relevant to a code, was marked on the hard copy and the code was written beside it. For example, if a segment in the text referred to the relative sizes of hospitals, the relevant lines would be bracketed and the code 'HOSPSIZE' written beside it. If a segment referred to an issue, that appeared relevant but was not yet represented by a code, a new code was created. The process was repeated till all interviews had been coded using a stable list of codes.

The next step was entering the codes into the numbered files in order to create coded files. Ethnograph instructions were followed to enter the codes such that they were consistent with the manipulation rules used by the program.

After the codes were entered into the Ethnograph numbered data files, the data was ready for pattern matching. The first stage of the analysis was an attempt to examine the validity of the framework developed in Chapter 4. It had been suggested earlier in this chapter that the framework may not be applicable in Alberta because it had been developed based on non-Alberta literature. The interviews, and archival records, were analyzed to verify the basic assumptions in the framework. For example, the conceptual framework is based on the assumption that there are two sets of beliefs in health care. It was also assumed the these beliefs were espoused by people with different professional training. So Ethnograph was used to extract all text segments that had been coded for medical beliefs--MEDICALBLF--and administrative beliefs--ADMINBLF. Ethnograph

automatically also extracts the name of the interviewee from whose interview the text has been extracted. These extracted texts were analyzed to assess the association between beliefs and profession. Other aspects of the framework were assessed in a similar manner. The analysis is presented in Chapter 6.

After the framework had been validated, the coded interviews were then searched for the patterns of codes across interviews in order to examine the propositions. Pattern-matching (Yin, 1984) was used to compare the patterns that emerged from the coded data with the predictions from theory. In other words, the search for patterns focused on finding evidence that supported or refuted the propositions. For example, for the first proposition, Ethnograph was used to extract all text segments that were coded for external response--EXTERNALR and hospital--HOSPITALA or HOSPITALB. Since the external responses were also sub-coded for types of tactics, the sub-codes were also automatically extracted. These extracted text segments were analyzed to observe support or lack of support for the proposition. As described in Chapter 7, most patterns matched the theoretical predictions, i.e., there was significant support for the propositions.

However, a few patterns that were not expected did emerge. One major finding that clashed with the theoretical framework developed for the study emerged very early in the interviews. Hence the coding also focused on extracting reasons for this departure from initial expectations. Explanation-building (Yin, 1984) was used to analyze the accumulated data to ascertain the cause of the unexpected finding. Since the researcher had noticed some of them during the data collection process, new questions had been included in later interviews to acquire relevant data.

5.4. 2. Analysis of Documents and Archival Records.

The analysis of documents and archival records proceeded along with the analysis of the interview data. Although the method of analysis was the same as the method used to analyze the interviews, Ethnograph was not used for this stage. Since this data was used primarily to verify/ corroborate evidence available in the interviews or clarify details that were not clear to the researcher from the interviews, the need for manipulation of text was limited. Hence the entire analysis of documents and archival records was done manually.

As will be presented in Chapter 7, the analysis of interviews suggest that certain changes have occurred in the measures of performance used within hospitals. In order to get a more quantifiable assessment of the changes, the nature of projects handled by the medical records division of the hospitals was examined. Copies of summary reports about the projects conducted by the Medical Records Division of Hospital A was examined. The findings are discussed in Chapter 7.

5.5. Conclusion

The research methodology used for the study was described in this chapter. The reasons for the selection of the case study methodology was provided. Further, a brief description of how the study was conducted was also provided.

However, despite its strengths and suitability for the study, the methodology was not without its shortcomings. The focus of the study was to examine the changes in measures of performance used in hospitals as a result of changes in institutional pressures. Although, as reported in Chapter 7, there is a lot of evidence from the interviews that measures of performance have changed, it was difficult to prove that this was the case based on documents that were accessible. New measures of performance were not 'created' as a result of the changes. Existing measures gained in importance and this was difficult to

'measure'. As done in Chapter 7, this change in importance of different measures was inferred from other changes in the hospital. The changes may be easier to infer from documents after the changes have stabilized.

A second weakness of the research design was the inability to separate the effects of power/legitimacy of a hospital and the dominance of the medical profession in the hospital. Although theoretically they are distinct effects, they were confounded in the context of the study. Theoretically, a hospital may be very powerful by virtue of it's role in a community. If an entire community is dependent on a hospital for its health needs, the hospital will be very powerful in negotiating with the government. This may be true even if the medical constituency is not very powerful. On the other hand, a hospital may have a dominant medical constituency, but still lack the bargaining power if external dependence is low.

This weakness may have been mitigated by including a third site which had high power and a weak medical constituency or had low power and a strong medical constituency. However, such a site may be difficult to locate in the current circumstances in Edmonton. If privately-owned for-profit hospital systems are permitted in Alberta, there may be a possibility of the first kind--high power and weak medical constituency.

CHAPTER SIX

VALIDATION OF THE CONCEPTUAL FRAMEWORK USED IN THE STUDY

The purpose of this chapter is to present and discuss the appropriateness of the conceptual framework used in the study. It presents evidence that suggests that the initial framework illustrated in Figure 4.1 was appropriate for the study. Data that suggests that there are two dominant institutions, each underpinned by a different set of beliefs, is presented. It is verified, based on interpretations of people participating in the process, that hospitals are experiencing external pressures from a new set of institutional beliefs. It is shown that there is a perception in both hospitals that Hospital A is more powerful than Hospital B in terms of dealing with the new pressures. Further, the data indicates that in both hospitals there is a clash in beliefs and interests between members who espouse medical beliefs and those that espouse administrative beliefs. Evidence that indicates that the dominant beliefs in the two hospitals were different before the new pressures is also provided.

6.1. Appropriateness of the Preliminary Framework

As discussed in Chapter 5, initial data collection was guided by a set of preliminary propositions. These propositions had been derived from the general framework based on discussions in Chapter 2 and Chapter 4. The framework was pictorially presented in Fig. 4.1. However, it was also suggested that the framework had been developed based on literature that may not be directly applicable to the context of the current study. Therefore, before going into the discussion of hospital responses to the new institutional pressures, which is presented in Chapter 7, the appropriateness of the initial framework for the study is examined.

6.1.1. Medical Beliefs and Administrative Beliefs

While developing the framework for this study, it was suggested that, within health care, there are two dominant institutions, each underpinned by a different set of beliefs--medical beliefs and administrative beliefs. Some differences between them, as stated in the literature, were also presented. Evidence of these differences between the two sets of beliefs, as perceived by members interviewed, is now presented.

It was suggested that medical professionals, who may be seen as representatives of the medical institution, use micro criteria that reflect medical beliefs to evaluate the performance of hospitals. On the other hand, hospital administrators, who represent the administrative institution, utilize macro criteria that tend to stress economic or administrative beliefs. The data suggests that these differences exist because of differences in training and professional socialization, varying roles within the health care system, and differences in proximity to the patient.

A physician from Hospital A, who is the Chairman of the Medical Staff Advisory Board, while explaining the impact of differences in medical and administrative beliefs on decision making by physicians, said:

> "... physicians are taught that their first obligation is to their patients--they have this special relationship, the patient comes to them in a trusting stance and they have an implicit contract to act in the patient's best interest. There is a potential conflict when what is perceived by the patient as his best interest and even by the physician as his best interest conflicts with everybody else's in the society to have their interests met. That's where the bind occurs."

In other words, the beliefs and values physicians acquire during training and socialization in the profession, deters them from viewing a situation from a societal rather than individual perspective. They are more likely to evaluate their own performance in terms of its impact on an individual patient, that is use micro criteria, than in terms of its consequences for society at large.

When asked if he believed that there was a fundamental clash between what a physician believes is his or her role in a hospital and the use of administrative criteria, another physician, who is the Director of the Division of Cardiology at Hospital A, had this to say:

> "(If) one feels that this patient is mine and I am this patient's doctor and advocate... Its usually when people are thinking in that role on a very individual one to one basis, that they sometimes express this idea that the fiscal restraints are creating less than perfect care."

He went on to say that he believed that if members of the medical staff tried to look at the larger picture they would understand that using macro criteria did not compromise their obligation to the patient. It might affect treatment offered to individual patients and be perceived as detrimental in the short run, but in a situation of fiscal restraint such cost cuts would allow them to provide care in the long run. However, he did suggest that oftentimes physicians do experience a lot

of difficulty in stepping back from the immediate situation to take a more long term view of the health care system.

The Chairman of the Medical Staff Advisory Board, quoted earlier, suggested that there may be structural reasons, which are not independent of the dominant medical beliefs, that prevent doctors from using macro criteria. Physicians do not perceive themselves as members of a hospital in the same sense as employees at a typical organization. This hinders them from looking at issues from a broader organizational or societal perspective. He said:

> "... a lot of physicians consider themselves to be independent contractors who have a relationship with this organization, which in their minds--the organization provides them with the ability to do their jobs and gets out of the way while they do it...The people (referring to physicians) who are the most vocal and the most cynical about it (recent government policy) are the people who see themselves as being lone guns, who are the advocates of the patients and they are defending the patients against the hospitals and the bureaucrats and the administrators and the like and arguing for things that are in the patient's interest."

In other words, the use of micro criteria, which comes naturally to physicians because of their training and relationship with patients, is further entrenched because of the nature of their association with hospitals.

In actual practice, this concern for individual patients, and hence use of micro criteria, translates into the use of measures of performance based on medical beliefs. This is quite evident in the concerns expressed by an orthopedic surgeon from Hospital A. He said:

> "There are certain clear medical indications or non-indications but as cost becomes more of a factor it will be difficult [to make decisions]."

He was concerned that if people not associated with the delivery of care, set non-medical criteria, based on macro principles, to decide who does or does not have a medical procedure, several patients will suffer.

Concern for the suffering of patients was also expressed by the Chief of Medical Staff at Hospital B. According to him, the problem of patients having to wait for treatment because of a lack of funds was not a significant worry at this stage, but could become a problem in the future. While he recognized the financial problems of the health system, he still focused on the suffering of individual patients when reasoning against the new policy changes.

One of the effects of the drive to become more cost efficient is the desire, on the part of the hospital, to discharge patients as early as possible. The quote below from an interview with the former Chief of Staff at Hospital B illustrates a physician's focus on medical issues while expressing concerns about early discharge. He said:

> "There are going be some people discharged from this hospital earlier than they should be...So it (acute care funding program) is going to help us become better managers but we are going to err on the side of sending people too early rather than keeping them longer."

The same sentiment was expressed by the current Chief of Medical Staff of Hospital B. When discussing the early discharge of patients, he was concerned about the lack of community and family support for individual patients who could potentially require assistance to fully recover. Both physicians had indicated elsewhere in the interviews that they were aware of the fiscal situation in the province and appreciated the need to reduce expenditure on health care. On the other hand, they expressed concerns when medically approved procedures were delayed or changed due to decreases in funds.

The fact that physicians experience difficulty in utilizing macro criteria while performing their functions is understood by people outside the medical profession. A Vice-President at Hospital A, who is a strong advocate of the use of administrative criteria in the evaluation of health care, also recognized that it may be asking too much for a physician to perform the dual functions of health care provider and cost controller. According to her:

> "The individual physician-patient relationship is very sacred. It is difficult to put a physician in the position of deciding "Do I have to cut this off because of money reasons?""

Other members of the administration also recognized the dilemma faced by the medical staff while trying to implement cost cutting measures into their practice. Another vice-president at the same hospital said:

> "Physicians have been traditionally trained as individuals to have an individual relationship with their patients and to identify and deliver treatment."

She acknowledged that it was difficult to expect physicians to abandon their traditional role, and make decisions to suit the hospital budget.

However, some suggested that administrators also experience the same clash of values from the opposite side. The Director of Finance of Hospital B suggested that it was easy for him to advocate the use of macro (administrative) criteria till he was faced with specific situations in which he felt he was required to place a dollar value on a human life. He said:

> "I cannot second guess [a physician] because I am not close to that activity (delivery of care)... I don't want to apply a price to life. Sometimes accountants say "This is efficient or not efficient." as opposed to looking at the question "Should it be done or shouldn't it be done?""

Just as in the case of medical staff, the role administrators perform in the health care system permits, and even encourages, them to take a limited view of

the system. Since they do not have a one to one relationship with patients, and are responsible for cost control and efficiency in the health system, it is easy for them to distance themselves from specific cases and apply macro criteria.

The Chief of Medical Staff at Hospital B, while describing his frustration in dealing with the health administrators, especially in the government, said:

> "I honestly don't believe that if you are sitting in the government office, no matter how much you say that you really appreciate what it means to health care [you cannot understand the medical staff's perspective... The medical staff] on the other hand don't see the problems in where you get the dollar."

The above quote refers to the use of different type of criteria based on role. It also links macro criteria and administrative values, and micro criteria and medical values. In other words, proximity to the patient encourages the use of micro criteria, which reflect life-enhancing values, and distance from a patient makes it easier for people to emphasize economic values.

In summary, the evidence presented above indicates that administrators and medical staff evaluate hospital performance in different ways. Each group's perception, particularly those of medical professionals, are influenced by the values and beliefs they have acquired during their training and socialization in the profession. The differences in the perspective between medical staff and administrators is also entrenched in the division of work in the system. These two mutually supporting factors results in differences in the criteria the two groups use while evaluating hospital performance.

6.1.2. Change in Institutional Pressures on Hospitals

A central feature on which this study is based is that hospitals are experiencing new external pressures. These pressures were framed as emerging from a 'new' institution underpinned by an administrative belief system. There was

evidence in all interviews that this was accepted by the people who are involved with the changes. Quotes from some of the interviews have been used to demonstrate the evidence that exists in support of this argument.

The shift in the provincial government's expectation from the health sector is quite clear from the April 25, 1990 speech by the Minister of Health to the provincial assembly. According to her:

> "Health is more than being not sick. It is a complete state of physical, mental, social, and spiritual well-being, and a resource to help people achieve their aims" (Alberta Hansard, April 25, 1990 : 791)

She went on to suggest the there was a need that the health care system be more accountable than it has been in the past. She indicated that the roles of various organizations involved in the delivery of health care needed to be defined, and that funding approaches would be used to provide incentives to change the way care is delivered. These changes would make the existing system more cost efficient. She also emphasized the importance of health promotion and disease prevention in the system. She said:

> "Health promotion cannot be regarded as a program separate from these health service components but must, in fact, be integral to all health service activity." (Alberta Hansard, April 25, 1990:792)

The shift in government policy suggests a decreased emphasis on hospitals and an increased attention towards other areas in the health system. This means less funds for the hospital sector for two reasons. Even if the provincial expenditure on health is maintained at its current level in terms of proportion of the provinces overall budget, a shrinking budget will mean less money for health care. However, money is also going to be diverted to the non-hospital sector which will result in further decreases in funds for hospitals. These changes are the result of a

perception in the government that the hospital system can be more cost efficient while continuing to maintain the current level of services.

As described in Chapter 3, the changes in institutional pressures are reflected in three significant policy decisions (i) The Acute Care Funding Program, (ii) The Role Statement Process and (iii) The Implementation of the Management Information System (MIS) guidelines. Most interviewees focused on the Acute Care Funding Program because it is having the most significant impact in terms of immediate planning. Since the program is designed to decrease funds to inefficient hospitals, it is the focus of a lot of attention. The other two have had relatively less impact and hence fewer interviewees focused on them.

In the rest of this section, data that indicates that people involved in the health care system in different capacities also perceive a shift in institutional pressures is presented. Evidence from interviews with people outside the two hospital sites is presented first, followed by evidence from interviews with hospital members.

According to a former bureaucrat in Alberta Health, who is now a senior executive for a group of long term care hospitals:

> "A big change has been the emphasis on wellness as opposed to sickness... The government is thinking that health is a much bigger issue than merely providing doctors and hospitals to the populations. They are realizing that even for sickness, care institutions are not really effective or efficient while delivering service."

He suggested that part of the changes can be explained by the desire to control health care costs. However, he believed, that the real reasons for the changes was a realization that health services can be offered in a more effective manner if the health system is better organized.

A senior bureaucrat from Alberta Health, while describing the changes in the system of providing funds to hospitals, indicated that the new funding system

was developed to ensure that all hospitals were provided the same amount of money for the same amount of services provided. However, he suggested that along with the issue of fairness in funding was :

> "an intent to increase efficiency within hospitals, increase incentives for efficiency, and reduce duplication"

The President of a hospital association that represents both hospitals also provided a similar assessment of the changes initiated by the Acute Care Funding Program.

As mentioned earlier, the government had also initiated a role statement process which is aimed at eliminating duplication and ensuring coordination between hospitals. As explained by a senior official from Alberta Health:

> "At the present time there is a fair amount of duplication, there is work along the way in some hospitals that we think belongs in other hospitals."

He suggested that as a consequence of the role statement process, hospital services will be rationalized to eliminate duplication and achieve volume efficiencies.

The intent of the government, as indicated by the people from outside the two hospitals, was clearly understood by key members in both hospitals. Evidence from within the hospitals is now presented.

Hospital A. A senior executive at the hospital, who had earlier worked for the government, indicated that there was a feeling in the government that they were not getting value for the money spent on health. According to her, this perception has got the government to change their expectations from their expenditure on health care. They had started focusing on "wellness" and not sickness, which was leading to decreases in funds that could be allocated for treatment.

The Vice-President (Finance) at Hospital A believed that the government was trying to make better use of its dollars spent on health care - they were seeking "to get the biggest bang for the buck with the health care dollar." He said:

> "(There) is a realization that the whole system has been structured around medical treatment, that the Health Care Model of the 50s and 60s was focused on "we can treat anything, we can fix anything after the fact"...But now they are saying that there are two things wrong with that one, we cannot afford the rapid advances in treatment technology...and secondly by working on prevention, chances are that you will produce a healthier populace."

The change in government policy, that was apparent to senior administrators in Hospital A, was also evident to members of the medical profession at Hospital A. However, some of them who were involved with the changes had a better understanding of the intent of the government. According to one physician:

> "I think there has to be a realization that the steep upward curve every year of hospital and healthcare spending is going to stop."

Another physician, who is the Vice-President (Medical Affairs), also described his understanding of the changes in similar terms:

> "There is not enough money (referring to a pie chart). Health care expenditure is out of proportion...If we are to achieve fiscal integrity we have to do something different. This means changing the proportion of money spent on health."

Later in the interview, he indicated that studies sponsored by Xerox and Motorola suggest that wastage in hospitals could amount to as much as 40%. It is this kind of information that has prompted the government to make changes in its health care policies.

Other members from Hospital A who were interviewed were also aware of the changes in government policy. However, some, especially senior members of

the administration and medical staff, had a better understanding of the changes than others.

Hospital B. Members of the senior management at Hospital B were also familiar with the changes in government health policy. When asked about what, according to him, were the reasons for the changes in the funding system, the Executive Director of Hospital B replied:

> "Partially availability of money. There is also a desire to improve efficiency of all health care facilities."

Another member of the non-medical staff at Hospital B, while describing the intent of the government, said:

> "It is because they want to look at how scarce resources are utilized. They want to reallocate them appropriately and try to build in efficiency as well"

Interviews with other members of the administrative staff also suggested that they were aware of the new administrative pressures being exerted on the hospitals by the government.

Although Hospital B does not have a medical staff like Hospital A,[1] the few physicians involved with administrative activity were well aware of the changes in external pressures. According to the former Chief of Medical Staff:

> "The acute care funding is an attempt by the government to increase accountability and efficiency within the system."

When asked about the changes in government policy the current Chief of Medical Staff said:

> "There is not a question in my mind that the government has to save money...The acute care funding process has nothing to do except

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[1] This will be discussed in more detail when Hospital Belief Systems are described later in the chapter.

with funding - they are going to cut down the amount they pay to us."

Although the above quote indicates the physician's lack of enthusiasm for the changes, he was aware of them.

As in the case of Hospital A, other members of Hospital B were also aware of changes in government policy. However, except for the senior administrators, most of those interviewed in Hospital B were not familiar with specific current or future implications of the changes.[2]

In summary, it has been demonstrated that there is a shift in institutional pressures on hospitals. Further, these changes are quite apparent to key members in both hospitals, and to other people involved with the health care system. In other words, the assumption of a shift in institutional pressures in this study is valid.

As suggested above, all the people interviewed were aware of the changes in government policy. However, this does not mean that all members of the two hospitals were similarly aware. Since the people to be interviewed were selected on the basis of their potential knowledge of changes in government policy, it is not surprising that they were familiar with the changes. However, there was significant variation in the level of understanding of the specific implications of the changes. The people who were working with the changes, in order to develop a response, internal or external, were more aware of the details than others. Also, the level of understanding of the intricacies of the various policies was higher in Hospital A than in Hospital B.

6.1.3. Relative Power of the Two Institutions

The dominance of institutions is related to the issue of increase in pressures on hospitals to become more efficient. As suggested in Chapter 4, the medical

[2] This will be discussed in more detail in Chapter 7.

institution has had, and still has, a dominant position in guiding changes in health care. However, the recent changes in government policy may be seen, as has been done in this study, as the administrative institution encroaching on the domain of the medical institution. As alluded to in some of the quotes in the last sub-section, there has been a questioning of the dominance of the medical institution in the public, in the government, and even within the medical profession. In other words, an increase in administrative pressures on hospitals is also associated with a decline in status of the medical institution.

The decline in the status of the medical institution was indicated two different types of arguments in the interviews. First, most people, including physicians, who discussed the issue of status of the medical profession indicated the physicians had experienced a decrease in public respect. This was interpreted as a decline in the status of the medical institution. Secondly, several people, physicians more than administrators, acknowledged that there was an increase in the number of people seeking treatment outside scientific medicine. This was also interpreted as a decline in the medical institution.

When asked about his perception on the public status of the medical profession, an official from Alberta Health had this to say:

> "I think it is that the public is becoming more informed. Its becoming more critical. I think in the past the physicians had a lot more authority with the public...I think as well there is a greater recognition that not everything that the physician may do is proven or is effective."

While trying to explain his perception of the decline in the status of the medical institution, an executive of a long term care group said:

> "People are much more willing to raise questions or challenge the physician... I think the profession has lost a little ground... I think they have lost a bit of their mystique."

Elsewhere in the interview he said:

> "Hospital admission privileges will be determined and renewed on the basis of efficient use of resources. So rather than saying "You are a good doctor nobody died." You will say "You are good doctor, and, by the way, we are pleased with your length of stay and your prudent use of tests and medication.""

In other words, along with the decline in the power of the medical institution, he also perceives an increase in power of the administrative institution.

The general feeling that there was a decline in the relative influence of the medical institution was also evident in interviews within the hospitals. A Vice-President at Hospital A said:

> "I think the public is less naive about physicians than they were before...[Now physicians] have to be able to work with patients not say, "Listen trust me I'm your physician and I'll tell you what it is you do.""

Similar opinions were shared by other members of the administration and nursing staff who were interviewed. They agreed that the medical profession had experienced a decline in authority inside and outside the hospital.

This general perception was also shared by members of the medical profession. The Chairman of the Medical Staff Advisory Board at Hospital A said:

> "the idea of the physician as the paternalistic figure who could dictate what happened and who was the boss and called all the shots--that's really changing"

The President of the Medical Staff Board at Hospital B described the situation in a very similar way :

> "Physicians had a lot more public respect than they do now... Previously it was if... the doctor said it...it was right. That's not the case any more."

Other physicians shared a similar opinion, but did not necessarily express it in similar terms.

The decline in the medical institution can also be inferred from the greater acceptance of other forms of medicine. Although none of the people interviewed made a link between the economic pressures on hospitals and the increased acceptance of other forms of healing, there was an acknowledgment that a larger number of people are seeking non-scientific treatment.

When a former government official was asked his opinion about the trend towards alternative forms of treatment, he indicated that there had always been a small percentage of people who relied on alternative healing practices. However, he believed that the number of people seeking them had increased. The change, according to a Vice-President at Hospital A, could be partially explained by increased immigration from countries where these alternative practices are more dominant. Also, as others are exposed to these practices they have a desire to experiment with these 'new' practices.

The fact that people are seeking help outside mainstream medicine is also acknowledged within the medical profession. A physician from Hospital B, when asked if he saw a trend said:

> "I would think that gradually there will be more acceptance by the medical profession of these peripheral things... There are a lot of things we have not been able to treat or explain. If we are not able to explain we should not put down others who claim they can."

Later in the interview he gave some examples where the medical profession had accepted and coordinated their work with some other professions. He suggested that College of Physicians and Surgeons had accepted to cooperate with psychologists and chiropractors to a greater degree than before.

There was awareness of this trend even among physicians in Hospital A. An orthopedic surgeon in the hospital when providing his opinion on why people are seeking alternatives said:

> "Part of it is that probably as practicing physicians we haven't fulfilled what the public expected of us... So patients have gone looking for alternative forms of treatment."

He also indicated that although he does not believe that alternative practices have real value in terms of improving the health status of patients, some people do feel better after using those services.

However, despite the changes, the medical institution is still the most dominant body in health care. According to a former government official:

> "...by and large, compared to politicians or hospital administrators, they (physicians) are pretty well off [in terms of public respect]"

A similar opinion was expressed by the Director of Communications at Hospital A. He suggested that it was very important that the government have the confidence of the medical profession when communicating with the public on health issues, even if they are related to costs and budgets. He said:

> "Whoever does [communicate with the public] has to have credibility. If a politician says that a hip transplant costs $ 6,000 no one will pay attention. If a doctor says it people listen--he is a knowledgeable source."

This suggests that despite a shift in legitimacy of institutions, the medical institution is still the most dominant institution in the health care arena.

In this section, evidence was provided to suggest that there has been a change in the influence of the administrative institution relative to the medical institution on hospitals in Alberta. There is also an increased acceptance of alternative forms of treatment. However, the medical institution is still the most dominant.

6.1.4. Medical Beliefs and Administrative Beliefs within the two hospitals

In Chapter 4, it was argued that the two dominant constituencies within hospitals are the medical staff and administrators. The medical staff emphasize

medical beliefs and administrative staff emphasize administrative beliefs. As a result, the hospital belief system is dominated by medical or administrative beliefs based on the relative power of the two constituencies.

One of the criteria used to select the two sites was that they would be different in terms of their belief systems. In this section evidence that indicates that the two hospitals are different is presented. It is demonstrated that although both hospitals have two dominant constituencies--medical staff and administrative staff--the medical staff at Hospital A is more powerful than the medical staff in Hospital B. In other words, there is a greater dominance of medical beliefs and values in Hospital A than in Hospital B. Evidence of conflict between the two constituencies in both hospitals is also presented.

Hospital A. Hospital A is a large general hospital that is associated with a university, and hence is involved in teaching as well as research. The fact that the hospital seeks to be seen, both from outside the organization and within, as a leader in health care activity is apparent in all artifacts that are visible/accessible to the general public. The slogan

Leadership in Health Care
-Caring
-Teaching
-Discovering

is written on most, if not all, visible items associated with the hospital--it is on the cover of the last two annual reports, it is on the business cards of all members of the organization, it is on panels displayed at several locations in the hospital, and on their letterhead. The mission statement of the hospital, as shown in Appendix 6, is essentially an elaboration of this slogan. The slogan, in a sense, captures the essence of the belief system in the hospital.

In the 1990/91 Annual Report , the president of the hospital wrote:

> "The Hospitals' role is to provide leadership in health care in the areas of caring, teaching and discovering - the traditional roles of an academic medical center."

In the 1991/92 Annual Report he wrote:

> "As a recognized international center for innovation in health care, education and research, Hospital A's achievements can continue to provide leadership by example across Canada."

The 1991/92 Annual Report also had a seventeen page section, with illustrations, describing the importance of the three areas of health care to the hospital.

The Director of Communications when describing his role in the hospital said:

> "Talking to the Vice-Presidents, the President, and the Board... [I understand that] they definitely want to be seen as one of Canada's leading hospitals. We do the three things of acute care, teaching and research, so that fits us into the leadership category"

He went on to suggest that part of his mandate was to develop and communicate this leadership role within and outside the organization. The details of the activities of the communication department will be discussed later. Members of the organization were aware of the special status of the hospital. If any comparisons with other organizations were made, they were with very well known hospitals.

Evidence presented above suggests that the hospital stresses its role as an academic health center, and suggests as much of an emphasis on teaching and research as on providing care. This indicates the relative power of the medical constituency in the hospital. Most physicians who are associated with the hospital have joint appointments with the Faculty of Medicine of a local university. Teaching and research is something they value, and has greater significance to them than to any other group in the hospital. The fact the hospital provides so

much stress on those activities is an indication that the medical constituency has a dominant position in the hospital.

This position of dominance that has been inferred based on analyses of documents and the interview with the Director of Communication, was also indicated in interviews with members of the administration and medical staff. The Vice-President (Medical Affairs) at the Hospital, while explaining the organizational culture at Hospital A said:

> "Most physicians here are used to some sort of overall control of visits, part of the academic medical institution. There are certain patterns of behavior that are respected. In another hospital, there may be a considerable difference."

It was evident in some other interviews also that the hospital belief system at Hospital A was favorably oriented for the medical staff, which is an indication of their power. According to a former government official:

> "A lot of the faculty like it there (Hospital A) because they are close to colleagues, and have excellent research resources...The culture of a predominantly private practice hospital would not serve them well."

A Nurse Manager from the hospital suggested a similar difference in culture, and also power of physicians, when she said:

> "The physicians that are here don't want to be part of the [name of a small hospital], they want to be part of Hospital A."

These quotes suggest that physicians, particularly academically oriented ones, prefer to be with Hospital A than with any other hospital in the area. This, it is argued, is an indication of the power of the medical constituency. Physicians want to be associated with the hospital because, in addition to the prestige, they have greater control over their work than in other hospitals.

The relative power of the medical constituency was also apparent in discussion on other issues in the interviews, especially when the interviews from

Hospital A are contrasted with those in Hospital B which will be discussed later. For example, a physician, while trying to make an assessment of the level of acceptance among physicians of a quality improvement program initiated by the administration at the hospital, said:

> "Unless you get everybody [physicians] on board, it will falter and maybe fail."

The above quote indicates that the administration is not powerful enough to implement changes without the cooperation of the medical staff. Further, the onus of convincing them that the change is necessary is on the administration.

The discussion so far has suggested that the medical constituency is more powerful than the administrative constituency, without providing evidence that these two separate groups exit. The fact that these two groups exist and are often in conflict is clear in the quote below from an interview with a physician, who was an active supporter of the administration's initiatives:

> "There are some areas still that have a 'we' and 'they' mentality, we are the doctors we know best, they are the administration, they are the enemy, don't cross the line."

He indicated that since some of the administrative actions in the past had affected physicians negatively there was a sense of apprehension whenever the administration decided to implement something new. This view was also shared by the other physicians that were interviewed. Although all the physicians interviewed in Hospital A were supportive of the recent changes initiated by the hospital administration, they believed that the changes would have to be implemented carefully in order to avoid opposition from the medical staff.

It has been established above that the hospital does have two dominant constituencies--the administrative constituency and the medical constituency. It was also concluded that the medical constituency in the hospital is more powerful

than the administrative constituency. In the rest of this section, evidence that indicates the existence of conflict between the two constituencies is presented. While some of the conflict can be explained in terms of differences in perspectives between the two constituencies, evidence that indicates that self interest also plays a role is presented.

While trying to explain the opposition from the medical staff to some of the changes in the hospital, the President of the Medical Staff Advisory Board said:

> "I think in some areas things have been bared down to the point where services are bleeding and they are unable to provide the kind of care that they would like to and consider to be critical."

He believed that a large portion of the opposition from the medical staff to the recent initiatives by the administration were rooted in the belief that implementation of the changes, designed to save costs, would hurt the quality of treatment. Although, the physicians that were interviewed, including the one quoted above, did not believe that quality of care was going to suffer, they indicated that many members of the medical staff were not convinced about it.

However, it was quite apparent that some of the opposition resulted from the negative impact of the changes on physicians' personal interests. According to a nurse manager:

> "The issue of quality of medical care comes up in every discussion and people are quite tuned to that. And sometimes people use that as a scape goat, that is a safe way of getting out of making changes."

In other words, she believed that oftentimes physicians, and even nurses, brought up the issue of quality of care to resist changes, when the real reasons for the opposition was personal interest. Personal interests include material interests, like loss of income, matters of convenience, such as changes in their daily schedule, or issues related to autonomy of practice.

The fact that material interests play a role in some of the opposition is clear in what a physician had to say about some of the changes in the hospital:

> "If you are going to say Dr. [name] you are going to do half the total joints you did last year which means I take home half of what I did last year--that's going to have a significant impact on me."

Similarly, when a Vice-President at the hospital was talking about the prospect of implementing change based on some of the outcome research that was being initiated at the hospital, she said:

> "Physicians have traditionally expressed opposition to the major changes in the system... If there are things that result in major losses of income ... I think you can expect some opposition"

As explained in Chapter 7, some of the changes had a potential to have a negative affect on physician incomes, and hence this was a cause of some opposition.

In addition to material interest, the cost cutting measures affect the life-style of physicians which also results in some conflict. In the past, ward units used to be open on all days of the week and for longer durations, normally 24 hours, the physicians could schedule their visits to the hospital at any time. Now that many wards are closed for the week end and have reduced hours on other days, physicians have to adjust their schedules according to the hospital schedules. This leads to resistance. As described by a Nurse Manager:

> "I think the belief that there needs to be a change in the way we do our things is fairly pervasive. I think when it comes down to the direct front line level of saying Dr. Smith this means that your beds will be available to you 5 days a week instead of 7 and it can have these potential impacts on your practice pattern, that's when the resistance tends to come."

Since physicians have their own practices and are involved in collaborative research, these changes put additional constraints on their daily schedule.

Some opposition stems from issues around the autonomy of a physician. As discussed in Section 6.1.1.1, many physicians consider themselves to be independent contractors and perceive administrative changes as an encroachment of their professional autonomy. According to a Director (Nursing):

> "They want to be left alone to do their own thing and if they are going to do outcomes research they want to do it themselves, they don't want ...it dictated to them."

A similar opinion was also expressed by the Head of the Orthopedic Division in the hospital, when trying to explain some of the physician opposition to moves by the administration that would change physician practice patterns. According to him a typical physician's response to changes will be:

> "I have always brought my patient in and I have looked after my beds and I don't want a nurse telling me what to do about discharging my patients--I'll decide..."

In other words, even if they do not oppose the changes in principle they would like to see that changes occur under the auspices of the medical staff.

In summary, it can be concluded that there are two dominant constituencies, each espousing different beliefs and values, and interests. In Hinings & Greenwood's (1988) terminology, this may be described as situation in which there is competitive commitment to two interpretive schemes--one based on medical beliefs and values and the other on administrative beliefs and values. However, as discussed above, the medical constituency is still dominant and this is reflected in the hospital's belief system.

Hospital B. Hospital B is a small hospital that is not involved with teaching and research. It has a community orientation with emphasis on providing basic care. One sentence in the hospital's mission statement reads:

> "The Board of Trustees recognizes the needs of the residents in the community and are committed to the provision of quality health care service which is effective and efficient "

Just as the slogan discussed in case of Hospital A captures the essence of its belief system, this sentence may be seen to be representative of the overall orientation of Hospital B.

Unlike Hospital A which seeks a leadership role in the country (and even internationally), Hospital B seeks to serve its local community. The hospital's logo symbolizes the community orientation. An explanation of the origins and meaning of the logo is included in Appendix 7. The hospital has produced "Reports to the Community" in two different years which also try to communicate a similar theme.

As indicated in the above quote from the mission statement, in addition to the community orientation, the hospital is concerned with the efficiency of services. In its description of "Corporate Goals and Strategies" submitted to the Edmonton Region Health Facilities Planning Council which listed ten goals, the first goal concerned fiscal management.

> "The major strategic thrust to maintain present services as described in the Mission Statement will be to pursue excellent fiscal management. The Board will continue to examine costs of services through its regular review process with Administration. Alternate ways to lower costs will be pursued."

This same message was further reinforced in the sixth goal

> "As mentioned in strategies under Goal No. 1, there will be a continuous monitoring of costs by all levels of the organization and an examination of alternate ways to carry out operations more efficiently. A specific strategic thrust will be aimed at the medical staff and the hospital staff to make them more aware of costs"

These goals suggest the importance of administrative beliefs in the hospital's belief system. This is also an indication, in an indirect way, that the medical constituency is relatively weak.

Unlike Hospital A, Hospital B does not have full-time positions for physicians except in some areas like emergency and radiology. Most of the medical staff have admitting privileges only. Only one member of the medical administration--the Chief of Medical Staff--is remunerated for administrative activity. Other administrative positions, such as clinical heads, and committee chairs are performed on a voluntary basis. It is because of this that the medical staff does not actively participate in hospital administration and as a result have a limited say in the hospital.

This relative power position is quite clear in the interviews. As one physician, who is also the President of the Hospital Medical Staff Association, described the situation:

> "We don't have a powerful medical administration here primarily because no one is paid for it. "

She believed that because representatives of the medical profession did not devote time to administrative activity, the administration, which also included members of the nursing profession, dominated decision making in the hospital. She had the perception that as a result of the budget constraints, there was pressure on physicians to become cost efficient while the others were not being similarly pressured. She said:

> "They (non-medical staff) don't seem to have the same kind of accountability that we do. We have to somehow justify having patients in the hospital for so many days, we don't see the administration having to justify a new secretary. Maybe they do that but we don't see that."

This quote also reflects the perception that the administrative constituency has a relatively dominant position.

The power of the administration can also be inferred from what another physician, the former Chief of Medical Staff, said when trying to explain the nature of changes he expected in the future:

> "I expect there will be more pressure than what we have felt till now to cut costs... I dread the day when they come to me and say that, "This maternity patient has got to go home in two days".

This indicates that the medical staff perceive themselves as having little power to oppose changes initiated by the administration.

The fact that the medical staff experienced a lack of power was also known to the administration. According to the Assistant Executive Director of the hospital:

> "The medical staff feel that they can say what they feel is right but we don't listen to them in administration."

Elsewhere in the interview, she said that there is a perception among physicians, as indicated in a quote above, that they are bearing the burden of the cost cuts, while administration has not changed their way of doing things.

It was easy to conclude that the medical staff in Hospital B is not powerful when compared to the medical staff in Hospital A. However, this is not to suggest that they have no power. They are still a very dominant group. The Assistant Executive Director quoted above, explained that it was very difficult for them to communicate the budget cuts to the physicians. She said that it took the physicians over a year to accept the fact that the budget cuts were real and cost saving measures had to be implemented.

The Executive Director of the Hospital also acknowledged the power of the medical staff. While talking about some changes in the hospital that he intended to implement, he said:

> "If they are imposed, they will not be accepted at all, particularly if they are imposed by non-physicians or non-physician groups...If they are developed internally, they are more readily acceptable."

In other words, although the medical staff at Hospital B is not as powerful as the medical staff at Hospital A, they are by no means a group that can be dominated by the administration.

Just as in the case of Hospital A there is conflict between the two groups. Once again, some of the conflict is based on differences in perspective and some on self interest. The President of the Medical Staff Association, who herself was not very enthusiastic about the recent changes, said:

> "I think if they understand the situation well they accept it more. The physicians that are in the medical administration and are in the board meetings, we develop a greater acceptance of it because we know how necessary it is."

She explained that as things were explained to her, she was more willing to co-operate with the changes. However, many physicians did not understand the changes and at the same time did not want to spend the time that may be required to better appreciate the changes.

The fact that physicians have a different perspective is quite explicit in what the Chief of Medical Staff at Hospital B had to say about his opposition to a form developed by the medical records division of the hospital:

> "They (the medical records division) developed a fairly simple form and I had nothing but antagonism. Not because actually the form was that difficult but it was yet another form. Partly the physicians are a different group of people. Physicians really don't like paper work. They don't like budgets. They don't like doing managing in a big sense... The minute you start to make them into a bit of an

> administrator type even in a small way, they say we don't want to do this. They don't necessarily see the value of it."

The form that was the subject of the above quote is shown in Appendix 8. If one was unaware of the context of a hospital it would be difficult to understand why the Chief of Staff was upset with the form.

As in Hospital A, some conflict is based on material interests. When the President of the Medical Staff Association was asked about the level of acceptance of some recent changes in the hospital, she said:

> "There is general lack of acceptance when anybody cuts beds and cuts money because that is how we make our living. The surgeons are very apprehensive about budget cuts because it affects their income more than others."

She indicated physician incomes would be negatively affected if, due to closure of beds, they were not able to admit patients. As indicated in the quote this affected surgeons more than others and hence there was more opposition from them than other medical professionals.

In addition to material interests, some opposition is also based on issues of life-style. When the hospital implemented short stay units in the hospital, it was opposed by physicians. The Manager (Emergency) explained the opposition:

> "Physicians would generally like the patients to be here so they can see them whenever they have the time. This program changes their practice. "

Although, physicians at this hospital are not involved with teaching or research, the implementation of the short stay units places constraints on their private schedule. This led to a lot of opposition.

Finally, as in the case of Hospital A, there is also the issue of professional autonomy. While trying to explain the opposition to other changes in the hospital a director in the administration said:

> "It is very difficult for them [physicians] to agree to have someone dictate to them how they manage their patients."

All physicians interviewed in Hospital B brought up the issue of autonomy in some way or the other. They believed that the administration was encroaching on their decision area and the changes needed to be opposed.

In may be concluded that Hospital B also has two dominant constituencies. Like in Hospital A, there is a competitive commitment to two different interpretive schemes. However, the medical constituency is less dominant than that in Hospital A. As a result, the hospital's belief system has less of a stress on medical values and more emphasis on administrative values when compared to Hospital A.

In summary, it may be concluded that in both hospitals there is competitive commitment to two different interpretive schemes. However, there is a greater commitment to medical values in Hospital A than in Hospital B. On the other hand, there is a greater emphasis on administrative values in Hospital B when compared to Hospital A.

6.1.5. Relative Power of Hospital A and Hospital B

The two hospital sites were selected so that they were polar opposites in terms of size, teaching and research. It was argued that because of differences on these characteristics, the two hospitals would have different levels of power in terms of being able to oppose changes in institutional norms. Hospitals involved in teaching and research are considered the most prestigious. They attract influential community leaders on their boards (Eakin, 1987). This also makes such hospitals the most legitimate and powerful health care organizations in society. Now evidence that suggests that Hospital A is perceived as more powerful than Hospital B is presented.

As discussed in Chapter 5 and Section 6.1.2, Hospital A is a large acute care hospital which is reputed for its teaching and research. The hospital has built on its strength to reinforce its powerful presence in the health care arena. The Director of Communications at the hospital indicated that the government was aware of the image of the hospital as a leader in the health arena in Canada and was in a sense dependent on the hospital in terms of communicating to the public about health issues. He said:

> "As far as the government people are concerned the feedback we have had from them, they definitely recognize our visibility..."

Later in the interview, he indicated that the government had been seeking advice and cooperation from the hospital in order to communicate the cuts in health expenditures to the public. This also illustrates the power of Hospital A relative to the government.

There was no significant reference to power of the hospital in terms of its ability to influence government policy in interviews with other members of Hospital A. However, there was frequent references to the leadership role of the hospital in conversations with senior administrators. Almost all those interviewed, including junior staff, did not perceive that Hospital A had significant problems communicating their dissatisfaction with aspects of the new policies. One nurse manager commenting on the implementation of the second phase of the Acute Care Funding Formula said:

> "I had some concerns with the way our data looked. We are working with the government to make sure that the formula is adjusted accordingly. They are certainly willing to listen to our concerns and make necessary adjustments if need be is my opinion so far. "

Later in the interview she said:

> "Disagreements with the emergency part of the formula has been discussed internally and with Alberta Health. Alberta Health has been really tuned to listen to those concerns."

These quotes indicate that she did not think that the government was imposing changes on the hospital. At the same time, she also believed that it would not be difficult to get the formula adjusted if it hurt funding to her area in the hospital.

Further, there was indication that the members at Hospital A were aware that they were perceived by others as being a powerful player in the health arena in Alberta. A Nurse Manager said:

> "Our facility in particular has frequently been identified as the one that has been treated as special because we are a tertiary level acute care referral hospital."

She also made reference to presentations to the government by other hospitals questioning the 'unfair' favoritism shown to the hospital.

At Hospital B there was a clear recognition that they were not very powerful in terms of dealing with the government. The members were aware that their hospital was not in a leadership role and was supposed to provide basic care to the local community. However, there were several references to size of the hospital and its impact on power. Talking about impending changes due to the regionalization program, the President of the Medical Staff Association at Hospital B said:

> "We don't want to be paired up with a big city hospital because we are so small we would lose all our power... Our hospital is looking at regionalizing with some outlying hospitals... They are feeling the same way about us as we are feeling about the [name of a big teaching hospital]"

This concern was shared by everyone that was interviewed. They were, in their various capacities, working to see that Hospital B was approved as a referral center for the region rather than become a satellite for a large city hospital.

Unlike the situation in Hospital A, several members of the hospital who were interviewed suggested that they had problems in getting the government to listen to their concerns. When one of the directors was asked whether she thought that some other hospital would be more successful in communicating with the government, she replied:

> "I think the bigger hospitals carry more clout. I think the teaching hospitals carry a lot more clout with the government than we do."

In response to a similar question, the Executive Director of the hospital said:

> "The more money you spend the louder your voice is. I would suspect that [Hospital A] has a louder voice than we do. The government has a greater interest in them because they spend more money."

Similar references to Hospital A having more power than Hospital B in terms of dealing with the government were present in other interviews.

Despite this general acceptance of the difference between Hospital A and Hospital B in their ability to influence the government, the Director of Finance at Hospital B did not perceive any significant communication barrier with the government. He said:

> "I think relative to other provinces, this government is doing it well. There is a lot of involvement from the field... At least they are listening to what we say."

In other words, unlike other people interviewed in Hospital A, he believed that the government had been very reasonable in responding to concerns of the hospitals, whether small or large.

This view was shared by an official at Alberta Health. When he was asked whether he thought that large teaching hospitals had a greater input in the development of the new policies, he said:

> "I know that there is a bit of a perception along those lines. But I don't think that is necessarily grounded. The steering committees has

members from both large and small hospitals. It is a relatively balanced approach."

While accepting that there may be a perception that large teaching hospitals have a greater influence on the government, he argued that no hospital had been favored when making the recent decisions.

In other words, it may be concluded, based on a few interviews in Hospital A and almost all interviews in Hospital B and outside, that Hospital A is more powerful than Hospital B. Although some persons interviewed did not believe that this was true, the researcher concluded, based on the majority, that there was a difference in power between the two hospitals.

6.2. Conclusion

In this chapter, the elements of the framework developed for the study was examined to verify whether it was applicable for the study. The seven propositions in Chapter 4 were developed based on certain assumptions. It was concluded that the assumptions were valid in the context of the study.

It was shown based on interview data that there are two dominant institutions--the Medical Institution and the Administrative Institution--in health care. It was then verified that, in Alberta, there has been a change in the relative power of the two institutions. The Medical Institution, although it is still dominant, has experienced a decline in legitimacy, while the Administrative Institution has gained in power.

Next, it was verified that there are two dominant constituencies in both hospitals selected as sites. While Hospital A had a very powerful medical constituency, Hospital B had a relatively weak medical constituency although it was still more powerful than the administrative constituency. This was reflected in

the belief systems of the two hospitals. Finally, it was verified that Hospital A was more powerful than Hospital B.

CHAPTER SEVEN

FINDINGS AND DISCUSSIONS

In the last chapter, evidence that indicated that the framework for the study is valid was presented. The first section of this chapter assesses the validity of the propositions presented in Chapter 4. The second section consists of a discussion of a significant finding that was not included in the propositions.

7.1. Evidence on Preliminary Propositions

In Chapter 5 it was indicated that the first phase of the data analysis focused on validating the conceptual framework discussed in Chapter 4. The analysis was presented in Chapter 6. The second and parallel phase involved examining the seven propositions presented in Chapter 4. In this section, evidence related to these propositions is presented.

7.1.1. Propositions 1 and 2.

> **Proposition 1:** Hospitals that have dominant medical constituencies are more likely to resist external administrative changes than hospitals with weak medical constituencies.
>
> **Proposition 2:** Hospitals that perceive themselves as powerful are more likely to resist external administrative changes than hospitals that perceive themselves as weak.

As described in Section 6.1.4., Hospital A has a dominant medical constituency while the medical constituency at Hospital B is less powerful than in Hospital A. In Section 6.1.5. it was suggested that Hospital A is more powerful than Hospital B in terms of its ability to oppose changes in government policy. Therefore, one would expect Hospital A to more actively oppose changes in government policy than Hospital B. It was explained in Chapter 5, that there were problems in trying to separate the effects of power of a hospital from the effects of a dominant medical constituency. Therefore, evidence for the two propositions is examined simultaneously. In order to make discussion easier, the evidence will be presented in three parts (i) Direct Influence on the Government, (ii) Influence on the Public, (iii) Influence through associated organizations.

7.1.1.1. Direct Influence on the Government

Hospital A: Although all senior members were aware of the financial constraints faced by the government, and expressed broad support for government actions, they were reluctant to allow recent changes in policy to result in negative consequences for their own hospital. The hospital has taken several steps that may be interpreted as attempts to resist the implementation of aspects of the new policies that affected it negatively.

The hospital is represented on almost all government appointed committees that are studying the health system in order to recommend changes. This gives representatives the first opportunity to express their concerns with any policy that may have negative consequences for the hospital. This was very clearly stated by a Vice-President at the hospital:

> "We have a member on almost every committee. To the extent that we are involved in developing the system we try and put forward what we think. We highlight the problems... In terms of the regional program, if we have information that we think will get the government to change its mind we do put that forward."

The Director of Finance at the hospital also indicated that the hospital was represented on several committees which provided an opportunity for the hospital to influence policies.

The government had hired a consultant to develop a funding plan for the province. The consultant developed a scheme for the funding of in-patient care and the government decided to go ahead with implementing it, while the funding system for other areas like outpatient care and emergency care were still being developed. While this surely would have caused some problems for the hospital, it tried to portray it as a major problem and requested the government to either delay the implementation of the program or exempt it from the current implementation.

The hospital's opposition to the implementation of the funding system was indicated in a letter dated 15 March 1990 from the Chairman of the Board of the hospital to the Minister of Health. He wrote:

> "... we believe that the partial implementation of an incomplete funding model is premature and ill-advised... the effectiveness of education, research and specialized treatment programs is threatened by basing funding decisions for these activities on a questionable formula."

After expressing his reasons for opposing the implementation of the funding plan, he requested that the implementation of the formula be delayed or not be applied to Hospital A. He wrote:

> "In the interests of maintaining and improving health care for Albertans, we urge you to delay funding adjustments under the Acute Care Funding Project until the model has been completed, tested and independently validated. In addition, given the unique nature and role of Hospital A, we would ask you to support the removal of our institution from the project [till that is done]."

Despite the opposition and requests for delays the government implemented the formula for Hospital A. In a letter dated April 23, 1990 the minister wrote back expressing her support for the steering committee's recommendation to implement the funding formula in spite of its weaknesses. In response to that letter the Chairman replied on May 10, 1990 expressing his opposition to the implementation and indicating that this may hurt patient care. The content and the tenor of the letter reflected the hospital's strong opposition to the implementation of the funding system.

In addition to opposing the government policies by tackling their contents, the hospital has also tried to highlight the special nature of the treatment offered at the hospital. It has made arguments that the formula is unfair because it compares Hospital A, which provides tertiary care, with other hospitals which provide

primary and secondary care. This was expressed in several interviews. The Vice-President (Finance) said:

> "For institutions like ours that have highly specialized programs, some of which are regional or provincial in nature, our concerns are that the arithmetic in the funding system is not sensitive enough to reflect the special circumstances."

The Vice-President (Planning) at the hospital suggested something similar. She said :

> "There is a concern that it will not recognize appropriately the role of academic centers in areas like education, research. Plus some of the high end specialty things that only these hospitals do like transplants etc."

The fact that the hospital has taken these specific concerns to the government was indicated in several interviews. Copies of some internal studies conducted to establish the point were also made available to the researcher.

The consultant who developed the funding system had addressed these problems by making adjustment for this aspect of tertiary care hospitals, by using size and number of residents as proxy indicators of large teaching hospitals (See Appendix 1). However, the hospital still expressed opposition to the implementation of the formula suggesting that many of the patients that it deals with are "outliers" that consume a lot of resources for which the hospital is not compensated by the government.

One example of how the hospital tried to confront the government to illustrate the inadequacy of funding is the case of a quadriplegic baby. The baby had to be transferred to a hospital in Winnipeg, Manitoba during the temporary closure of Hospital A's pediatric cardiac surgery program. Due to complications during treatment in Winnipeg, the baby became a quadriplegic requiring regular ventilation. Hospital A refused to accept the baby back because it did not have enough funds to operate its Pediatric Intensive Care Unit. According to the

hospital's estimates it would require about $250,000 per year to take care of the baby. In a letter to the Hospital in Winnipeg, a pediatrician from Hospital A wrote:

> "I would like to re-emphasize our commitment to bringing [name] back to Edmonton as soon as we have a commitment from the administrative hierarchy that her care costs will be funded by a separate and distinct chronic care program"

The government of Alberta was also informed of the hospital's decision not to accept the baby because of funding constraints. The Assistant Deputy Minister replied:

> "I am very concerned if the hospital takes this position in every case with the potential for high resource utilization... I appreciate the fact that we need to develop an approach whereby high cost patients are recognized in the system."

His response indicates that not only is he concerned with the hospitals stance on the baby, he is aware that this is being used to pressure the government to provide extra funds for specialized treatment.

Based on the evidence presented above, it may be inferred that Hospital A has made efforts to resist the implementation of the external changes that had the potential to affect it negatively by trying to directly influence the government.

Hospital B. As described in Section 6.1.5., Hospital B is a relatively less powerful organization. Therefore, there is reason to believe that the hospital would not be very active in terms of presenting opposition to the government.

Unlike Hospital A, Hospital B was not well represented on government appointed committees planning changes in the health system. Therefore, it did not have the opportunity to express its views in the formulation stages of the policies that are affecting it. It was largely reacting to the changes after they were being implemented.

Further, evidence from the interviews indicated that the hospital had tried to lobby the government for funds on other issues and failed, so it had not made very strong efforts this time. The local Member of the Legislative Assembly (MLA), who was a senior minister in the government, was involved in presenting the case of the hospital in two different instances. The Hospital wanted to purchase a computer which the government thought did not suit the needs of the hospital. Despite the MLA's efforts the government refused to fund the project. In another instance, new equipment for laundry work that had already been installed had to be shifted to another facility because the government wanted to have centralized laundry facilities for the region. This happened despite opposition from the hospital and involvement of the MLA.

Describing the hospital's experiences in these two cases, a Director in the hospital said:

> "We really have not had a success in having the government change their mind during our planning process. When we tried to have certain things changed because we did not think it was going to meet our needs, we ran into a brick wall."

She indicated that, because of these two experiences, the hospital had not made any efforts to persuade the government to stop or delay the implementation of the recent programs.

The Director of Finance while describing the hospital's response to the recent policies said:

> "We are complying with the MIS guidelines so we have not debated or appealed some of the things... Same with the acute care funding. We have not made an appeal or lobbied to any degree."

He suggested that the hospital administration supported these changes and hence did not think it was necessary to appeal these changes. However, he also admitted that they had not worked out all the details, so they were not in a firm position to

evaluate the negative consequences in order to make strong case to the government.

It may be concluded from the interviews that Hospital B had not made efforts to get the government to change its plans because of its past experience. There may have been efforts which were not indicated in the interviews. Further, letters or documents were not accessible, so a firm conclusion is not possible. However, it is unlikely to have made any significant efforts with the government after some unsuccessful attempts described earlier.

In summary, it may be argued that since direct resistance to the new government policies may be interpreted as confrontational, Hospital A, which perceives itself as powerful, has opted to use several ways to directly influence the government to either change or prevent the implementation of the new policies. On the other hand, Hospital B, which sees itself as a junior partner, has not tried to directly approach the government and express its resistance to changes in health policy.

7.1.1.2. Influence on the Public

Hospital A. In addition to dealing directly with the government, Hospital A, which had acquired its prominence as a premier teaching hospital and a center for high profile specialized treatments, has actively pursued the public media to highlight the potential impact of decreased funds on teaching and research activity. Unlike a typical organization which normally has to solicit media attention, a major hospital like Hospital A is a natural focal point for a lot of news. According to the Director of Communications, given the public interest in issues related to health, the media is very interested in anything that is new--new surgery, new

treatment, or a variation in an old treatment. It is also interested in individual patients who have already made the news because they have been involved in an accident or have some uncommon disease. As a result, the hospital has been handling media attention for a long time and has developed a good working relationship with media personnel from radio stations, television stations, and various newspapers.

The potential of the new institutional pressures to adversely affect the hospital led to a re-thinking of the role of the communications department.[1] A new Director of Communications, with considerable media experience, was hired to provide a new direction to the department. In his assessment, the hospital had a very good rapport with the media which could be used to the hospital's advantage. Rather than advertise in the media, which he believed is expensive and also ineffective, the hospital decided to place positive stories about the hospital in the media. Since these items are treated as news rather than attempts to influence beliefs, the public assimilates the information better. When someone from the media inquired about any particular patient or treatment, they were requested to do additional stories which would benefit the hospital. On less frequent occasions, the media has been actively pursued in order to carry a news item that is time sensitive.

However, unlike the confrontational tenor of the letters to the government, the stories in the media did not criticize the government. According to one of the Vice-Presidents at the hospital:

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[1] Another reason given for the re-design of the communications department was that the hospital was going through a major re-orientation after the adoption of the Total Quality Management (TQM) program and required a medium to communicate that both externally and internally. However, later in the analysis the TQM program itself is linked to the new institutional pressures.

> "Having worked in the government for a number of years in that department I know that you will pay for doing a lot of criticism of the government in public."

She indicated that the government was implementing the changes that, in its best judgment, were required for the long term viability of the Alberta Health System. Hence, expressing discontent with the changes to the public media would only anger the Health Minister and other government officials, and hurt the efforts of the hospital to influence the government. The Director of Communications himself noted that, in his estimate, the government had not felt confronted by the stories in the media. He said:

> "I have had comments that they think we are doing the right thing in terms of our efforts and the approach. We try not to bash government."

Although the Director of Communications stressed the fact that the items put in the media did not criticize the government, one of the intentions was to restrict the ability of the government to curtail funds. As he put it:

> "If the government sees us as visible and they know that the public are aware of us, then anything they do to support our activities is a benefit for them too. So there are some political ramifications"

In other words, although the news items placed in the media were intended to raise the profile of the hospital in the minds of the public, they also served to restrict government actions. By directly influencing public perceptions about its contributions to society in terms of research on, and treatment of, critical ailments, the hospital's actions make it very difficult for the government, which is supposed to act of behalf of the public, to implement changes that adversely affect the hospital.

Hospital B. Unlike Hospital A, this hospital is not a natural focus for media attention because it is not associated with high profile research or treatment. Most,

if not all the patients from its community who have severe ailments are admitted to Hospital A or other similar hospitals. In fact, the few times it has attracted media attention is when something went wrong. This has made the hospital very cautious in its interaction with the media. Therefore, unlike Hospital A, Hospital B does not have a built-in capacity to deal with the media. In other words, the hospital does not have a rapport with the media that can now be used for its benefit in the way it has been done in Hospital A.

However, the administration was aware that gaining the support of the local community was crucial if they were to soften the negative effect of government actions. As one administrator suggested:

> "Now if the government is not going to fund us, we should at least let the public know what services we offer and how good we are for the community... If the community backs us, maybe the government will be there for us"

This awareness has led the hospital to develop its capabilities to communicate with the local community and also handle the media.

The hospital did not have a separate department and still does not have full-time staff to handle the public or media relations. Since the Executive Director believes that, because of its small size and limited needs, the hospital cannot afford to have full-time staff, he has allocated the responsibility to some senior administrators. They have been provided basic training in media and public relations to handle regular activity. Some of the more specialized activities are contracted to outside organizations.

Hospital B derives its strength by providing easy access to a range of common ailments and some specialized treatment procedures to the local community. It has tried to communicate the importance of easy access to the public. Prior to the recent changes in government policy, the hospital had received

approval to build a new facility and had moved to it as the policies were implemented. The hospital had expanded its capabilities and had plans for more but was now restricted because of lack of funds. News items in small community newspapers described to the public what the new facility could offer. They highlighted the benefits of having a hospital with such capabilities within a short driving distance. The advantages were quick access, as well as convenience for family members and friends to visit patients.

When asked about the hospital's efforts to involve the public in its dealing with the government, the Executive Director of the hospital said:

> "We are trying to describe to the public what our hospital is all about. Through the foundation, through articles in the newspaper. We are trying to be more proactive in describing our story."

He suggested that the articles and inserts emphasized the advantages of having easy access to a range of medical treatment, and in the process highlighted the problems that would be created if certain programs were centralized at a distant hospital.

Besides providing articles and inserts in newspapers, the hospital has had local community forums in which the negative consequences of some of the changes in government policy were discussed. The major focus of these forums was potential negative impact of recent government polices on accessibility to treatment procedures close to the home. They highlighted the importance of family support for the recovery of patients which could be more easily provided in a community hospital with fewer patients than in large hospitals. In the assessment of a nurse manager from the hospital who attended one of the forums, it created significant awareness in the public about the actual effects of recent government initiatives. It resulted in some members of the community writing to their representatives in the legislature and the minister.

In addition to the formal channels of communications, the hospital has used patient visits as an opportunity to communicate with the community. Information sheets and fliers that describe the current and prospective changes are placed in convenient locations for visitors to read. Further, the meetings between physicians and patients and their families have provided an opportunity to get members of the local community involved. As described by a Nurse Manager from Pediatrics:

> "The doctors are talking to the parents when they come in here. We are certainly informing parents about what might happen down the road."

In other words, the hospital had used an existing relationship between the physician and patient and his/her family to get them involved in the hospital's cause.

Based on the evidence discussed above, it may be concluded that Hospital B has used several methods to communicate with the public in order to gather support to respond to some of the government actions. Although, it does not have as good a rapport with the media as Hospital A, this has not been a major disadvantage because it does not have the need to communicate to a large audience. Since its audience is located in or close to the local community, it has used other means that are useful in a small community.

In summary, both hospitals have attempted to influence public beliefs in order to challenge the cost-efficiency based performance measures being applied to them. To do that, each has tried to emphasize the beliefs that support their current strengths. Hospital A has communicated the importance of its high profile research and treatment to the whole region, while Hospital B has advertised the importance of easy access within a small community.

7.1.1.3. Influence through Associated Organizations.

Hospital A. Attempts to influence external constituencies were not limited to actions by the concerned organizations. Hospital A had a foundation operated by prominent citizens of the city to assist it in raising funds for research and programs not funded by the government. While the foundation's campaigns have been successful in the past, the need for them to succeed in the new circumstances is high. While the immediate purpose of the campaigns is to raise money for specific purposes, they contribute to the image of the hospital. Recent events have led to an increase in the level of coordination between its public campaigns and the activity of the communications department of the hospital, which includes media relations. The coordination has helped reinforce the message delivered to the public. It is hoped that this coordination will help raise more money and at the same time maintain a higher profile for the hospital.

Further, an association of teaching hospitals, of which Hospital A is a member, has also publicly raised the problems of decreasing funds to its member hospitals. Hospital A has been involved in the seminars and meetings organized by the association to analyze the effects of the new policies. However, the actions of the association cannot be seen as only favoring Hospital A but representing all teaching hospitals in the province.

In addition to this, an association of all hospitals in Alberta has been providing its opinion on recent changes in government policy to the public. Like the public communications from the hospitals and the association of teaching hospitals, it has highlighted the negative consequences of the new policies. This association represents both Hospital A and Hospital B, so its actions may not be seen as favoring any single hospital. However, because the association is

supported by funds from hospitals, it is likely that larger hospitals that provide larger contributions, may have greater influence in it public communications.

Hospital B. Hospital B did not have a foundation prior to the recent changes. However, its board decided to establish one in 1991. According to the Executive Director of the hospital:

> "The foundation has been developed for two reasons. One is to provide a larger profile for the hospital. And also to meet our needs in term of resources."

The Director of Finance at the hospital also described the purpose of the foundation in a similar way. He said:

> "The foundation is trying to educate the public about what the hospital is and is also trying to raise funds."

As indicated in the quotes, the hospital is using the services of an associated organization to persuade the public. The Executive Director suggested that the foundation was providing the same message that was communicated through the inserts in local newspapers, but was doing so in a more indirect manner.

Although Hospital B is not represented by the association of teaching hospitals, the other association, described above, represents the concerns of all hospitals, including Hospital B. It is inferred that Hospital B would have the ability to influence some of the public communications of the hospital association. However, as suggested above, it may have less of a say than Hospital A because of its smaller financial contribution for the support of the association.

In summary, it may be concluded that, in addition to responses by the affected hospitals, other organizations that are directly associated with the two

hospitals or represent them have made attempts to influence public opinion in order to curtail the government's ability to implement the changes.

The evidence related to Propositions 1 and 2, can be summarized as shown in Table 7.1. It provides a comparison of the external responses by the two hospitals as a result of recent changes in government policy.

Table 7.1

COMPARISON OF EXTERNAL RESPONSES BY HOSPITAL A AND HOSPITAL B (INCLUDING SOURCE OF EVIDENCE)

	Hospital A		Hospital B	
	Docu-ments	Inter-views	Docu-ments	Inter-views
Direct Influence on government	Yes	Yes	N/A	No
Influence through public	Yes	Yes	Yes	Yes
Influence through associated organizations	Yes	Yes	Yes	Yes

It suggests that Hospital A has used all three types of influence tactics--direct influence, influence through the public, and influence through associated organizations. On the other hand, Hospital B has not used direct influence on the government, but resorted to the other two types of influence. As discussed above,

direct influence on the government is more confrontational than influence through the public or associated organizations. Therefore, Hospital B's actions may be seen as less defian than those of Hospital A. In other words, there is support for the two propositions because they suggest that Hospital A would be more likely to resist external administrative changes than Hospital B.

While a significant portion of the difference in external resistance between the two hospitals can be attributed to the factors indicated in the two propositions, namely power of hospital and dominance of the medical constituency, some of the difference can be attributed to availability of resources. In addition to its power and dominant medical constituency, Hospital A had the ability to allocate personnel and resources towards challenging the new policies. It also had access to a larger pool of talent and support facilities to scrutinize the new policies and produce a cohesive resistance to the new norms. Hospital B did not have the benefit of a large resource base, talent or support facilities, to be able to launch a direct challenge to the new policies. The impact of resources on hospital response will be discussed again after examining the evidence for Propositions 4 and 5.

7.1.2. Proposition 3

> **Proposition 3**: Hospitals will portray greater compliance with administrative beliefs in public documents even as they avoid internal changes.

Even as they resist the imposition of new norms, organizations may maintain external conformity with the norms (Meyer & Rowan, 1977). In other words, organizations may utilize avoidance as a strategy (Oliver, 1991). They may suggest changes in the public domain, even if they do not make changes to their practices and continue to use old measures of performance for actual evaluation

purposes. While both hospitals have opposed the government policies in various ways, they are aware of the resolve of the government to implement the core principles of the new policies. They have to at least show externally that they are complying with the new regulations, even as they may avoid compliance.

The evidence from both hospitals presented below suggests that while they have publicly displayed acceptance of the new policies, they have also tried to avoid making real internal changes. This is not to suggest that there have not been significant internal changes. Since organizations may use multiple strategies in response to an external change (Oliver, 1991), the hospitals have made changes as well avoided changes. The changes will be discussed when presenting the evidence for Proposition 4 and 5. In this section, evidence related to the efforts to avoid real changes is presented.

Hospital A. As discussed with reference to the first two propositions, Hospital A has actively tried to resist the implementation of the government initiated changes. However, public documents like annual reports and mission statements reflect an acceptance of the new norms. For example, in the 1991/92 Annual report the president of the hospital wrote:

> "Our current economy cannot continue to support the rate of growth we have been experiencing in health care costs and services - a growth rate that continues to significantly exceed that of the economy itself."

In the same report the Chairman of the Board wrote:

> "Funding realities have required that [in Hospital A we] change the way we operate in many areas but we were successful again this year in adhering to our fiscal policy of operating with a balanced budget while meeting the goals of our strategic plan."

These quotes suggest that the hospital administration is aware of the desire of the government to control expenditures on health care. They also indicate that the

administration shares this concern with the government and is making changes in the hospital in order to operate within the limits of their budget allocations.

The same message is communicated in other documents and letters. Even letters to the government communicating opposition to the new policies, as quoted in Section 7.1.1.1., clarify that the hospital accepts and is supportive of the underlying principles of the new policies but is opposed to specific instruments that operationalize those principles. In other words, in the letters to the government, the hospital has communicated a desire to comply with the government's initiatives to make the health system more cost efficient, even as it opposes their implementation.

External portrayal of compliance with the administrative pressures was presented in other forms. For example, the 1990/91 Annual Report provided a description of the Total Quality Management program that had been implemented at the hospital. It highlighted, using bar charts, the details of the cost savings and decreases in lengths of stay in patients undergoing total hip replacements. It was suggested that similar changes were going to be implemented in other divisions. The total hip replacement case was cited in several interviews as an example of the efforts of the hospital to become cost-efficient.

However, there was evidence in the interviews to suggest that the program had a limited impact in many areas. This is most clearly captured in what one physician said about the quality improvement program :

> "The quality improvement initiatives have effected us little. There has been a lot of smoke but no fire in our area."

He indicated the case of total hip replacement was a very good example of the changes that can be made through the TQM program in order to reduce costs. But except for a few areas in the hospital, the TQM program had not affected the

hospital practices. Most units in the hospital had not made significant changes to their established ways of operation.

In many other areas, where changes have happened, they are limited to changes in the reporting system without changes in practices or actual evaluation procedures. Since the new government funding policy is based on volumes and severity of illness, the hospital has made efforts to see that work activity is reported such that they look efficient even if treatment processes remain the same. As indicated in the last section, members from Hospital A believed that they treated the most severely ill patients of the province and the formula used to calculate the efficiency index did not truly reflect that. In addition to challenging the basis of the formula, special efforts have been taken to ensure that work activity is coded for the maximum severity possible.

The hospital's response in this regard was explained by the Vice-President (Finance):

> "Those changes are changes focused on completeness of information, improving the information, improving the coding, to get proper credit. There haven't been operational changes in those areas."

Referring to similar changes, the Vice President (Medical Affairs) said:

> "It has made us better data collectors. These [funding changes] are driving us to more accurate measuring or determining things."

The Director of the Medical Records Division, that has the responsibility of coding work, also suggested that coders were paying more attention to ensure that the work is coded such that it improves the hospital's HPI index:

> "[In the past] the coding of the diagnoses was kind of arbitrary. The coder could pick one diagnosis, or choose not to record another diagnosis. Now certainly a lot attention is being paid to that."

In other words, there have been several changes in the way patient data is collected and reported. The changes have been made with the purpose of benefiting from the way in which the government calculates hospital efficiency. These changes have occurred even as actual work activities have remained the same.

In addition to changes in data acquisition practices, there have been changes to the way in which this data is reported to the government. The Director of Finance while explaining those changes said :

> "The change has been in the annual returns filed with Alberta Health...That report is used in calculating the hospital's performance index. So a report that used to be just a report is now looked as almost a tax-return... now the report is prepared with the purpose in mind."

He indicated that one may conclude that it is a biased report because it is produced to maximize benefits based on the funding formula. He also indicated that in contrast to the changes to the annual return, a budget report that is presented to the legislature has not changed because the information it contains does not affect the hospital funding.

Some of the responses of Hospital A, discussed above, may be interpreted as trying to portray external compliance and benefit from the current and expected changes without making real changes to internal activity. In other words, it is inferred that although the hospital has communicated publicly to increase the use of cost based measures in its evaluation of hospital performance, these changes are not apparent in some of its internal actions. This conclusion was also supported by a physician's statement about changes to the way he evaluated performance. He said:

> "I don't think that there is a substantive difference in the way my colleagues and I evaluate what we do. We are just changing our thinking about this whole area."

He suggested that it may take a long time before the acute care funding program and other related programs have a wide impact on actual work activity, and result in changes to evaluation procedures.

It may be concluded, based on the evidence discussed above, that there have been efforts in Hospital A to display compliance and even benefit from the new norms, without making real changes to the way services are delivered.

Hospital B. As discussed earlier, Hospital B has been quite passive in terms of opposing government policy. The changes they have made will be discussed later. However, the hospital has also made efforts to buffer internal processes from the external pressures. Their mission statements, their "Reports to the Community" and inserts in the community papers all stress the commitment of the hospital to be cost effective, including descriptions of specific programs that are meant to improve efficiency.

At the same time, the hospital has taken actions to improve performance in terms of the formula used by the government to determine funding, without making changes to work activity. Hospital B is in the process of acquiring a computer software package that will provide prompts to the coder to ensure that work is coded to provide the highest efficiency index possible. Describing the package, the Assistant Executive Director said:

> "We hope to start a new coding system in the new year... You use the diagnosis that gives you the highest severity, but if you do it manually there is no time to do all. The computer system will prompt them to check the code used."

She indicated that a coder is often faced with several options when coding data from a patient chart. When the choice of codes did not affect funding levels, a coder used his/her best judgment to select a particular code. Now there is an incentive to select the code that makes the hospital look cost efficient, which leads

to higher levels of funding from the government. The software program, referred to above, is designed to prompt the coder to make choices that would benefit the hospital. In other words, as in Hospital A, there were efforts to make changes to the way in which patient data was collected and reported rather than make real changes in practices.

The fact that there had not been significant changes in the way hospital performance was evaluated was suggested in several interviews. When one of the physicians in the hospital was asked whether he had made changes in his practice, he said:

> "I am not sure it has changed my treatment or investigations."

He went on to say:

> "In theory it should. It should also affect which antibiotic is used. The difficulty is that it is an administrative nightmare to sort that out. It is very difficult for me, as a physician, to know the cost of different antibiotics unless somebody is looking at my orders and coming back and telling me that the hospital would save money if I use some other antibiotic."

In other words, although there was pressure to include cost effectiveness as a dimension while evaluating treatment procedures, physicians had avoided doing that at the time of the research. Also there was a lack of administrative support to assist physicians to make some of the changes.

It may be concluded that Hospital B has tried to display public compliance with the new norms, but real changes in evaluation or practices are not as widely accepted as one would expect.

In summary, it can be argued that both hospitals have tried to make a public display of compliance, even as they have tried to avoid real changes. Both hospitals have also made changes to the way they accumulate and report data such

that they are seen to be more efficient, even as actual hospital procedures remain the same. In other words, there was support for Proposition 3 in both hospitals.

In addition to actions to improve the way in which data is reported, as discussed above, there is a possibility that hospitals may cheat. Although no evidence of cheating was found in either of the hospitals, persons interviewed in both hospitals indicated that hospitals could code their activity at severity levels that are higher than they actually are to receive higher levels of funding. The HPI formula is designed based on the assumption that the cost of providing care increases with severity of illness. Hence a hospital that codes the services it provides at a higher level of severity will gain. This provides an incentive to cheat.

A physician from Hospital B discussing the issue said:

> "One thing that bothers me is that it encourages you to exaggerate the degree of illness...There are too many ways to manipulate and abuse in the interests of funding."

He expressed concerns that some hospitals may make no real changes to become more cost efficient but improve their funding levels by reporting false data. He suggested that the incentives to do so are high, because hospitals are finding it very difficult to deal with budget cuts. Also, the only way this can be prevented is if the government audited the data collection and reporting, which he believed in itself would off-set the savings in health care expenditure achieved by recent government policies.

7.1.3. Propositions 4 and 5.

> **Proposition 4:** Changes in measures of performance in weak hospitals will be greater than in powerful hospitals.

Proposition 5: Changes in measures of performance in hospitals dominated by the administrative constituency will be more pronounced than in other hospitals.

For the same reasons given for examining evidence for Propositions 1 and 2 simultaneously, evidence for propositions 4 and 5 will be examined similarly. The evidence presented in this section suggests that there have been changes in measures of performance in both hospitals. All people interviewed believed that there had been, or were going to be, modifications in the way hospital performance was evaluated. In addition, changes in measures of performance were inferred from other procedural and structural alterations in the hospitals. It will be argued that the alterations reflect a change in measures of performance used.

When a senior official in Alberta health was asked whether he perceived modifications in measures of performance used within hospitals, he said:

> "That's occurring already. We are seeing much more emphasis on data in the hospitals as well as in the department here... Certainly there is much different data collection, different data analysis, much more sophisticated utilization monitoring."

The perception of this official, that there have been changes in the methods of evaluation in the hospitals, found considerable support in the evidence from both hospitals. Evidence from Hospital A is presented first.

Hospital A. Hospital A had installed a hospital information system in the mid-1960s which had led to the collection of a range of cost related data. However, since the government had established reporting systems that required hospitals to report on only certain data elements, the hospital had a practice of abstracting only those mandatory elements. Appendix 9 provides the list of data elements abstracted by type of admission. It was not until the recent changes that

the available information was examined more seriously. According to a Manager in the Medical Records Section:

> "In the inpatient side, we collected information and have it available back into the mid- 60s. But for the most part nobody really came to us asking about that information... Now they are looking at length of stay, utilization. Physicians are more interested in the data."

This change is reflected in the increase in the number of projects handled by the medical records department as shown in Table 7.2. It shows that except for a decrease in 1990, which the medical records manager believed was an anomaly, there has been a steady rise in the number of projects.

An examination of the list of requests indicated that the studies were requested by a diverse group of people. The single largest group of requests were from physicians, and as indicated by the names of the projects were largely for medical research. While analysis of data on patient mortality or morbidity were the foci of most earlier projects, the sudden increase in projects is due to the analysis of length of stay and resource utilization requested by physicians as well as administrators. The manager quoted above suggested that there had been an awakened awareness to costs issues among physicians. She arrived at this conclusion based on the change in response level among physicians to inquiries from her department. She indicated that in the past physicians would normally not respond to clarifications about patient charts, but after the recent changes they almost always respond because they are aware that mistakes could lead to a decrease in funds for the hospital.

There was evidence when speaking to some physicians that the way they, and the hospital, evaluated their activity had changed. The President of the Medical Staff Advisory Board said :

Table 7.2

Research and Statistical Projects conducted by the Medical Records per month at Hospital A, 1987-1992

	Years					
	1987	1988	1989	1990	1991	1992
January	26	20	24	13	17	28
February	15	27	22	24	15	23
March	12	15	21	10	16	30
April	18	15	29	28	33	21
May	18	21	40	31	28	45
June	14	16	17	10	15	32
July	21	11	9	7	15	27
August	10	23	17	9	30	31
September	15	12	11	18	22	29
October	21	31	24	21	32	
November	21	15	21	11	39	
December	12	16	12	11	17	
Total	203	222	247	193	279	266 (for 9 months)

> "Evaluation has always gone on. The nature of medicine is to evaluate what is done. But... the economic implications of the questions that are posed is changed. The spotlight is shifting from much more biological issues to social issues, economic issues."

Later in the interview he said the same thing in other words:

> "The question was always "Is it worth it for the patient?" not "Is it worth it for the whole society?" I think that's changing."

These two quotes suggest that the way in which hospital performance is evaluated in Hospital A is changing. They also indicate a link between micro criteria and medical values and macro criteria and administrative values. In other words, an increase in stress on administrative values has led physicians to evaluate hospital performance in terms of impact on society also, rather than be limited to examining the impact on individual patients.

There was evidence of these changes in other interviews also. The Director, Division of Cardiology, indicated that, in his area, they had included cost related data elements in their medical research studies, to determine the fiscal impact of new medical procedures. He suggested that this was a departure from the past.

These shifts in evaluation had affected several areas in the hospital. According to one physician, the change in the way health care was evaluated had an effect on the acquisition of new technology. He said:

> "I think that the fascination with new gimmickry and gadgetry and new techniques is changing...Its up to the guy who is going to introduce it to justify. Not to say here's a new idea you have to justify why I cannot do it. "

In other words, prior to the changes a new gadget would be acquired if it looked promising. Now there is a much greater emphasis on establishing its worth before it is introduced in the hospital. This clearly indicates a greater emphasis on administrative measures of performance.

The change is evident in some other modifications in the hospital. The hospital had implemented short stay units, and pre-admission clinics in several departments. The short stay units operate only on week days and are closed during the weekend to save costs. This requires surgeons to coordinate their surgery, such that the most severely ill patients or the most complicated cases are operated on, on Monday. They recover in the hospital for five days and go home on the weekend. Other patients that require shorter periods of recovery are operated on later in the week. Once again they are expected to go home by the week-end.

Pre-admission clinics work in tandem with short stay units although that is not necessary. Under the old practices, the patient was admitted to the hospital a day or two before the actual operation so that preliminary medication and preparation could be done. With pre-admission clinics patients are not admitted to wards before their operations. They come to these clinics for the preliminary medication and preparation and go home. They come in on the day of the operation and are admitted to the wards after the operation. This also results in significant cost savings.

Although the funding formula for ambulatory care had not been implemented at the time of the research, the hospital had made anticipatory changes. There was a strong thrust to identify illness that could be treated on an outpatient basis instead of an inpatient basis. This would also reduce costs by avoiding admitting the patient.

Several departments in the hospital have made changes through the "Value Improvement Program" (VIP). The hospital administration formed a Value Improvement Group which included members with training in quality management in industrial settings. The mandate of this group was to evaluate established practices of departments and suggest changes such that costs can be minimized. Different departments are expected to voluntarily employ the services

of this group to eliminate inefficient practices. Referring to the hip replacement case discussed in Section 7.1.2, a physician in the hospital's orthopedic division explained his department's experience with the VIP process:

> "We looked at possible savings, benchmarked with other hospitals, and came up with new and different ways , improved ways for giving the same service for less time in the hospital, less lab tests, less antibiotics and more education of patients, more discharge planning, more efficient throughput in the operating room. It was 23% percent in constant dollars that we knocked off the price and provided better care."

The same program when applied to coronary by-pass led to a savings of 13.5%. According to an internal report:

> "The total cost per patient for the procedure decreased from $13176 pre-VIP to $11403 post-VIP (adjusted to 1991 dollars)."

The changes had occurred without compromising any medical requirements. Only aspects of treatment procedures that did not contribute to the care provided were eliminated. Another physician explained some of the savings:

> "Things that have been identified in the quality improvement initiative are things like redundant laboratory investigations where repetitive blood tests are done because somebody wrote down an order that it be done everyday. It just gets done and nobody looks at the results. That sort of thing has been flagged and stopped."

According to the Vice-President (Medical), there are several departments very anxious to implement the VIP program, but have been unable to do so because the group implementing the program is overwhelmed with their current projects.

The hospital has also implemented the Patient Resource Consumption Profile (PRCP) Project. This project was initiated in 1988/89, just when the government started publicly discussing changes to the health care system, and was to have been completed in 1992/93. The aim of the project is to develop a data base that provides patient-specific breakdown of costs "associated with radiology,

laboratory, nursing, rehabilitation and the operating room". A patient resource consumption profile provides detailed descriptions of the treatment procedures provided to a patient along with a description of the resources consumed at each stage of the treatment. An examination of these profiles provides a detailed cost break-down of the different components of the hospital services provided. This, in combination with the medical records data, is used for utilization review, impact analysis and operational reviews. Physicians are expected to use this data within peer groups to minimize variation in practice and lower costs. These changes are not underpinned by the desire to change medical outcomes but by the need to reduce costs for a given outcome. In other words, these changes in Hospital A reflect an increase in the acceptance of performance measures based on administrative beliefs.

In summary, it can be concluded, based on the evidence from interviews, that there have been significant changes in the measures of performance used in the hospital. There has been a greater emphasis of cost based measures that reflect administrative beliefs rather than medical beliefs. This change is also reflected in several procedural and structural alterations in the hospital.

Hospital B. Unlike Hospital A, this hospital did not have computer facilities for their medical records department. They had not implemented any computer based information system. As a consequence the hospital collected and maintained information that was mandatory according to government regulation. This was used to prepare the statements that were submitted to the government. This provided a very limited data base to monitor and control costs. Almost all members in the hospital that were interviewed admitted that there was not enough emphasis on cost management before the recent changes.

Now the hospital has hired an Information Systems Manager and is in the process of implementing a new information system that will provide the necessary financial information and allow them to analyze the allocation and spending of resources. They have also had exchanges with other hospitals, including Hospital A, to understand and implement a system so that patient resource consumption profiles can be maintained. The Director of Finance in the hospital, while discussing the changes, said:

> "We are categorizing and classifying expenditures in more detail. We are also getting into workload measurement reporting and getting into analysis of work loads and cost. We are heading more towards a US type of applications because we are applying the principle of cost accounting to health care administration."

The Chief of Medical Staff also indicated that the hospital had not been very good at monitoring costs in the past, but there were plans to become more cost effective.

> "We don't have all the facts and statistics yet. But we are going to do that. We are going to find out how much it costs to have a procedure."

There was similar evidence from all interviews. They clearly indicate that there have been tremendous changes in terms of evaluation of hospital performance. Cost is definitely playing a greater role in the day to day decision making at every level.

The changes in measures of performance can also be interpreted based on the steps the hospital has taken to reduce the costs of the materials they used. The hospital had implemented a Product Review Committee to examine resource utilization and practice in every area. The Assistant Executive Director explained that the committee was reviewing all hospital procedures to eliminate wasteful expenditure. One of the examples of waste in the hospital the Nurse Manager

(Emergency) spoke about illustrates very clearly the lack of accountability for money spent before the recent changes. He said:

> "We were using special U-tubes for having medication hooked on to a piece of plastic tubing - they were $ 140 each. We could do the same thing with a normal tubing and a minibag for about $ 12."

This was flagged by the committee and changes were made. There were similar examples of cost savings in other areas also.

Just like Hospital A, this hospital has implemented short stay units, pre-admission clinics, and day surgery. However, they are in the early stages of implementation. The hospital is dependent on the larger hospitals, like Hospital A, to provide them guidance to make some of the modifications that will allow them to be more cost effective. In other words, Hospital B has made changes to the way it evaluates hospital performance, but modifications in the hospital that might reflect that are still not in place.

In summary, there was a lack of support for Propositions 4 and 5. The propositions suggested that Hospital A would make fewer changes than Hospital B. However, evidence discussed above, suggests that although both hospitals have increased the emphasis on cost effectiveness, there were changes of greater significance at Hospital A than at Hospital B. This is also indicated in the opposite trends in the Hospital Performance Index[2] of the two hospitals as indicated in Table 7.3.

The table shows that the value of the indices has fluctuated for both hospitals. This has happened because they are based on a comparison with other hospitals. A hospital that provides its services at the average cost efficiency in a comparison group will have an HPI of 100. If a hospital has implemented changes

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[2] The Hospital Performance Index is described in Appendix 1.

to improve cost efficiency, its HPI will improve only if it has become more efficient than the other hospitals with which it is being compared. Since different hospitals have made changes that have resulted in improved efficiencies in different times, the indices have fluctuated. If a hospital is less efficient than the average, its HPI is less than 100, and if it is more efficient than the average its HPI is greater than 100.

Table 7.3

Comparison of the Hospitals Performance Indices of Hospital A and Hospital B

Year	Hospital A	Hospital B
1986/87	76	110
1987/88	98	117
1988/89	110	114
1989/90	105	109
1990/91	100	106
1991/92	96	95

The table indicates that Hospital A lower HPI values in comparison to other hospitals before the implementation of the new funding system. At the same time Hospital B had higher HPI values. However, despite fluctuations due to reasons

described above, Hospital A has improved on its HPI score while Hospital B has got lower HPI scores. In other words, Hospital A has been able to make more changes in response to the new funding system than Hospital B.

One of the reasons for this may be a recognition within Hospital A, from experiences in other provinces in Canada, that major changes in government funding were inevitable. The hospital would not be able to maintain its old level of funding without making significant changes to become efficient. So rather than not make changes with the hope that the government will back out of its policy changes, it has initiated major changes to benefit from the changes.

However, another factor that can explain the changes is access to resources. Assuming that both hospitals had decided to embark on a plan to become more cost-efficient, Hospital A had more resources to study and implement changes. Therefore, all things equal, Hospital A is in a better position to adopt change. This difference was recognized outside the two hospitals. When an official from Alberta Health was asked "Do you see a difference between the larger and smaller hospitals?" He said

> "Yes, the larger ones are more sophisticated in their ability to pin-point their weaknesses...[A review of the programs] has been more readily done in the specialized hospitals because they have more resources to understand the funding system. The smaller hospitals I think are still trying to grapple with how the system works. They do not have as many staff."

A similar opinion was expressed by the Chief Executive of a long term care group. He said

> "A larger hospital with more programs probably has more options. They have a greater ability to redirect resources."

In other words, the fact that there are more changes in Hospital A than in Hospital B can be attributed to the availability of resources in terms of money, skills and

technical facilities to understand and respond to the changes initiated by the government.

Therefore, it may be argued that there may have been support for Propositions 4 and 5, if there was a perception that the changes in government policies could be stopped. Since it is clear to all participants in the health care system that the changes are inevitable, their efforts have been directed at complying with the changes. The external tactics discussed in Section 7.1.1. can then be interpreted as efforts to delay the changes so that there is more time to respond. Since both hospitals have tried to make changes, Hospital A which has access to more resources has been able to make more significant changes.

7.1.4. Proposition 6.

> **Proposition 6**: With an increase in external administrative pressures, there will be an increase in the power of the administrative constituency in a hospital.

Internal changes to structure and processes are associated with changes in organizational belief systems (Ranson et al, 1980), which in turn involves changes in the power structure of an organization. Members with the ability to deal with the new pressures gain in power (Hickson et al, 1971; Pfeffer, 1981) and cause a shift in the organizational belief system.

As discussed earlier, physicians have had a dominant role within hospitals causing a typical hospital's belief system to be skewed towards medical beliefs. However, the recent external changes have shaken the equilibrium. Firstly, an average physician does not understand, and does not want to devote the time to understand, the processes through which the new regulations will affect the hospital. This has created a dependence on administrators that did not exist before. Secondly, in light of clear communication from the government that expenditure on health care will be capped at the current rate for the next few years, the

importance of cost control in the delivery of health care is apparent to everyone in a hospital. This has resulted in a greater acceptance of the role of administrative activity in the delivery of health care.

As discussed in Chapter 5, it was difficult to raise the issue of power in the interviews. Therefore, most of the evidence discussed below is indirect evidence. A change in power is inferred based on conversations on issues other than power.

Hospital A. In Hospital A, which is reputed for its research, teaching, and high end specialty treatment programs, physicians had, and still have, a dominant position. However, all administrators from the hospital who were interviewed believed that the new institutional pressures have made it easier for them to promote and implement some changes that they had been trying to execute for some time. The physicians interviewed also acknowledged that members of the medical profession are more willing, if only grudgingly, to accept an expanded role for administrators. Some physicians have assisted the administrators by actively championing specific change programs. As a result, a new dominant coalition of administrators and physicians has emerged.

The President of the Medical Staff Advisory Board described how changes in the funding system, and a general decrease in funds, had led them to appreciate the role of an administrator. Referring to the Acute Care Funding Program, he said:

> "It has impacted us in the practice of medicine and led to bed closures and has led to an increased appreciation of the need for efficiencies which we [physicians] have not been very good at identifying and clearing up."

There was a greater appreciation for need of efficiency, but at the same time there was a realization that most physicians do not want to be involved with

administrative activity. This has resulted in greater cooperation between administrators and the medical staff.

When the Vice-President (Operations), who is not a physician, was asked whether she perceived a change in physician's acceptance of the role of an administrator, she said:

> "Yes. Because of the fiscal situation in the province as a whole, it makes it a lot easier for us to suggest that we need to do things in a different way."

A very similar opinion was expressed by the Vice-President (Finance), when he said:

> "In an environment of shrinking resources, there is the potential to find better ways to deliver health care for less money. You would not find the same impetus if we had money. Nobody would be that concerned about improving the efficiency or productivity of what we are doing."

As indicated in the quotes above, there is some evidence that there has been a shift in power in Hospital A. This is inferred from references to greater acceptance among physicians about the need for efficiency, and suggestions from both physicians and administrators that it was easier for administrators to initiate cost saving measures than before.

Hospital B. Hospital B has only a few full time physicians. Most of the physicians have private practices and admit their patients to the hospital when required. As a result, resistance from the medical staff in Hospital B was not comparable to that at Hospital A. It had been concluded in Section 6.1.4. that the medical staff in Hospital B was not as powerful relative to the administration as in Hospital A even before the recent changes.

However, just as in Hospital A, there was a greater appreciation for cost savings among physicians that were interviewed. Also, administrators did believe that external changes had made their job easier. They were able to get clinical heads of different department to spend more time in dealing with budgets and be involved in developing ways to respond to the prospective budget cuts.

In summary, it can be argued that there has been a relative shift in power in favor of the administrators. In other words, Proposition 6 is supported by the evidence gathered in the interviews. However, the evidence is neither strong nor conclusive. There are a few reasons for the lack of strong evidence for, or against, this proposition. First, it was very difficult to frame a question, for either administrators or physicians, that would adequately address the issue of change in power. Further, the interviewees normally did not respond to the indirect questions in a way that can be used as evidence for the proposition. Secondly, other typical measures of power, like changes in salary or changes in decision making authority, that have been used in other studies were not easily accessible to the researcher. Also even if they were available it would be difficult to establish a change in power based on those measures because it will probably take a long time before changes are significant enough to infer a change in power.

7.1.5. Proposition 7.

> **Proposition 7a**: Hospitals that are dominated by the medical constituency will increase efforts to revive the medical beliefs within the hospital.
>
> **Proposition 7b:** Hospitals that are dominated by the administrative constituency will introduce efforts to enhance administrative beliefs within the hospital.

Previous research suggests that when organizations face new institutional pressures they are likely to re-emphasize the values and beliefs of the old institutional environment within the organization (D'Aunno et al, 1991). In other words, organizations in domains that have acquired their legitimacy from conforming to the requirements of the medical belief system, are likely to attempt to re-emphasize those beliefs among their members. However, this was not the case in both hospitals in this study. The external pressures for change were so strong that a change in the way health care was delivered was unavoidable. As one physician described it, the external changes are so significant that a change in 'mind set' of members of the hospital, especially physicians, was essential.

Hospital A. In 1991, Hospital A raised the profile of its internal news vehicle from a newsletter of a few pages to a full fledged newspaper. It has used the paper almost exclusively to inform its members of the actual and potential reductions in government funds, promote the concepts of total quality management which was initiated simultaneously with the changes in government policy, and encourage every member to think in terms of cost-efficiency.

The first issue of the paper coincided with the announcement of the hospital's five year strategic plan. The issue carried a four page description of the current situation of the hospital, potential future circumstances, and the need for the hospital to embark on a new path. Later issues have had regular news items about government announcements and minister's speeches related to major changes in government policy. These news reports were invariably accompanied by interviews with one or more senior administrators of the hospital who interpreted the implication of the changes to the hospital. The interviews stressed the need to improve efficiency and, in order to build urgency for change, often hinted at bed-closures and lay-offs if the hospital did not become efficient.

The hospital has also utilized other ways to make hospital members more aware of administrative issues in the delivery of health care. Staff at all levels have been encouraged to attend seminars and courses to upgrade their ability to deal with the new environment. According to one Director (Nursing)

> "We have tried to educate our managers, nurses and even physicians on the acute care funding plan and the meaning of HPI. We are really trying to get people to be knowledgeable."

These seminars and courses have often been conducted internally. However, on occasions, the services of external consultants have been used.

The hospital has also initiated a series of free lectures and panel discussions called "Health Talks" that focus on popular health issues. Although the topic of these lectures and discussions are related to medical issues, these occasions have also led to discussions of cost of care and ethical issues involved while deciding on cost cuts in a hospital. These lectures and discussions are open to the staff and general public, but the hospital staff form a significant portion of the audience. Further, the hospital newspaper provides reports on the key issues so that people who do not attend the sessions may also benefit from them.

In other words, through various ways, the hospital has tried to make members more aware of administrative issues, that is, it has promoted administrative values. On the other hand, the researcher could not identify, either in the interviews or documents, similar efforts to promote medical values. Therefore, there seems to be a lack of support for Proposition 7a.

Hospital B. Hospital B, on the other hand, did not have an internal news vehicle because the staff was small and communication was easy. However, the new Executive Director has plans to launch a newsletter so that members are aware of the real situation. He intends to use it to communicate the need to be

more efficient. At the time of the research, the hospital had initiated committee meetings in which cost cutting issues were discussed. Each member of the committee was expected to communicate that to the people in their respective areas.

The hospital has also encouraged members of the hospital to attend courses to understand the budgeting and costing procedures used by the hospital. Unlike Hospital A, Hospital B has not sponsored seminars or lectures. However, it had provided financial incentives like re-imbursments of fees, and grants of money for people to attend management courses outside the hospital. Therefore, there was support for Proposition 7b.

In summary, it can be concluded that there is a lack of support for the propositions. Unlike, the predictions of the Proposition 7a, Hospital A has emphasized the importance of the administrative aspects of health care. It has tried to communicate to its members the need to conform to the external changes, rather than oppose them. However, as predicted by Proposition 7b, Hospital B also has done, or has intentions, of doing something similar.

As explained in the case of Propositions 4 and 5, it is argued that the hospitals have assessed that the changes in government policy are inevitable. Hence, they have decided to do all they can to prepare for the new environment. Therefore, unlike predictions in 7a, Hospital A has promoted administrative beliefs along with the significant internal changes.

7.2. Increased Attention to Medical Outcomes

A significant, but unexpected finding of the study, was the increase in emphasis on measures of medical outcomes as a consequence of increased pressure from the Administrative Institution. In developing the propositions for the

study, there was an assumption that, prior to the pressures to become cost efficient, hospitals would evaluate performance based on the examination of medical aspects of health care. However, the evidence suggested that there was a lack of evaluation, from the medical perspective. This was true for both hospitals. With the increase in pressures to become more cost effective, however, there is an increase in the attention given to medical outcomes.

Hospital B is a small hospital without any association with a university. It has a relatively weak medical constituency. The medical staff is not involved in research. Given these circumstances, it may be understandable that the hospital had not evaluated medical outcomes. However, this was also the case in Hospital A where the hospital has an affiliation with the Faculty of Medicine of a local university, has a strong medical constituency and the medical staff is involved with medical research. Evidence from Hospital B, where a lack of focus on medical outcomes may be more easily understood in terms of the conceptual framework in Figure 4.1, is presented first. This is followed by evidence from Hospital A where the neglect of medical evaluation is more difficult to explain in terms of the framework.

Hospital B. Everyone in Hospital B who was interviewed and spoke about medical outcomes admitted that their hospital had not evaluated medical outcomes in the past. Most of the evaluation efforts were directed at ensuring that the treatment programs followed established procedures. In other words, the hospital had relied on process and structural measures of performance of medical processes. As described by the Assistant Executive Director of Hospital B:

> "Our hospital has not looked at outcomes... They have audited various medical treatment programs."

However, she indicated that even those measures were not very strictly enforced because there wasn't significant external or internal pressure to ensure compliance with those norms.

When the Chief of Medical Staff at the hospital was asked why there was very little examination of medical outcomes in the hospital, he attributed it to the lack of objective outcome measures. He said:

> "We had been [measuring medical outcomes], but not well. I don't think there are good parameters for doing that. Its partly philosophical. We have the objective findings--the pneumonia that's cured, we can look at the X-ray and its cleared. There are some pneumonias, you look at the x-rays and its cleared, and listen to the patients and they are not there yet."

He suggested that, unless the outcome is clearly negative, like death, it is difficult to be sure of the impact of the treatment. It is difficult to evaluate the extent of recovery in any reliable fashion, and hence outcome evaluation was not done until complications caused the patient to return to the hospital.

However, now there is a greater emphasis on examining medical outcomes. The focus is to stop procedures that do not improve medical outcomes. The Director of Nursing suggested that there were plans to follow outcomes on a formal basis for the new short stay unit that had been implemented. She said:

> "We have never done outcome audit. That is coming in now. We have a program starting in November where we are going to call all our surgical patients--that's all related to early discharge--[to follow up on the outcome of the treatment they received]."

The fact that there was a change in emphasis on medical outcomes was also supported by evidence in other interviews in the hospital. A Nurse Manager from Obstetrics, when asked whether her unit examined the impact of treatment provided on the patient, said:

> "No we didn't. We continued with the practice. Now with the changes we are trying to have data to determine the impact."

She indicated that, in the past, there was no pressure to evaluate the effectiveness of treatment procedures so outcomes were never a focus. Even the process measures were not rigorously applied till a complication occurred. However, there has been a change in the way the hospital's performance is evaluated. Both medical outcome and process measures are getting more attention.

Senior members of the administrative and medical staff attributed the increased focus on medical evaluation of hospital services to the external pressures to become more cost-efficient. Since the new funding formula implemented by the government rewards the hospital that provides the most efficient care, there is an incentive to eliminate practices that do not contribute to the improvement of health status of a patient. This has indirectly caused the hospital to examine medical outcomes. As treatment procedures are modified to reduce costs, the hospital has to ensure that the changes do not hurt medical outcomes. Hence, cost consciousness has also caused the hospital to evaluate medical outcomes.

In summary, it may be concluded that there has been an increase in the efforts to use medical outcome measures in Hospital B. This increase is the result of external administrative pressures to become more cost efficient.

Hospital A. Given that Hospital A is associated with a university, has a dominant medical constituency, and stresses medical research as a central focus, it is natural to expect, based on the framework in Figure 4.1, that there would be rigorous medical evaluation of the impact of the care provided to patients. However, there was ample evidence from administrators and medical staff that medical outcome evaluation did not get the attention one might expect.

A quote from an interview with a Manager of Medical Records illustrates the point. She said:

> "We collected information and have it available back into the mid-60s. But for the most part nobody really came to us asking about the information."

Unlike Hospital B, there was no lack of information in Hospital A. Data required to follow up medical outcomes was abstracted from discharge charts and maintained. But, due to a lack of focus on medical outcomes, the data was not extensively used till the change in environment.

The lack of focus on medical outcomes was attributed to the lack of pressure to evaluate hospital performance. Established procedures were used without any assessment of their impact on the patient. As in Hospital B, there was an incentive to review procedures only when things went wrong. As a result, the hospital had several practices that were performed without any formal mechanism to verify whether they contributed to the desired results.

As described by the President of the Medical Staff Advisory Board:

> "The whole idea that work should be evaluated is a change. In the past, there was almost a blind spot--you thought of course this is better. Intuitively this makes more sense, so lets do it. Then you never went back and actually measured whether it made any difference or not. That kind of thinking is changing."

He suggested that the change in thinking is a result of external pressures to become more cost efficient. People have become aware of the need to re-examine some of their established practices.

The recent decreases in funding have led to the examination of treatment practices in terms of the cost of providing them and also their impact on medical outcomes. The desire to control costs has caused the hospital to review hospital practices to eliminate procedures that are expensive without being superior to less

expensive procedures. As indicated by the Vice-President (Medical Staff), these changes are happening across Canada. He said:

> "There is a great emphasis on outcome research. It is only beginning... It is predicted that in the next 10 years half of the funded research will relate to those kinds of things. The other half will remain in biological research."

He suggested that since all provinces in Canada are trying to control their expenditure, the trend towards examining medical outcomes should be apparent in all hospitals.

As part of this trend towards examining the efficacy of medical procedures, Hospital A has plans to establish a "Health Care Quality and Outcome Research Center." When the hospital was re-organized in May 1992, a new position called Vice-President (Research) was created to head this center. The center is still in the planning stage. However, even without the center, the hospital has started to examine medical outcomes more closely. According to the Vice President (Planning):

> "Within the last year in medical units we have been doing morbidity and mortality reviews with every death. We didn't do it with every death."

She suggested that, with the establishment of the research center, the efforts to evaluate medical outcomes will be formalized. These procedures will gradually be expanded to cover more procedures.

The Value Improvement Program (VIP) and Patient Resource Consumption Profile (PRCP) program, as discussed in Section 7.1.3., are both examples of actions of the hospital that are designed to eliminate hospital practices that do not contribute to the improvement in the health status of a patient. Since modifications to practices to reduce costs are based on their impact on medical outcome, both these programs have resulted in a greater focus on medical outcomes. In other

words, administrative pressure to become more cost effective has also led to an increase in the use of outcome measures underpinned by medical beliefs and values.

One example of the increased focus on medical outcomes as a result of the VIP program is the total hip replacement procedure. Total hip replacement is a medically approved procedure that is used on patients with damaged hips. If a patient has a damaged hip, it may be substituted with an artificial hip replacement that performs the same function. If only medical measures of performance are used, there is an incentive for surgeons to use the highest quality hip replacement for every patient. It is their obligation to provide the best care available to every patient. Since these decisions were not challenged by any other measures of performance most patients received the highest quality replacement. If the replacement was successful, the patient was restored to normal function, and if it failed, the patient was no worse than he/she was before the operation. In other words, the use of the highest quality replacement was always the best choice. However, this meant that almost every patient received the costliest hip replacement.

With the increase in pressures to be cost effective, the criteria used to decide hip replacements has changed. The use of administrative measures of performance has caused the hospital to evaluate the cost effectiveness of hip replacements. This has resulted in procedural changes. However, this has also resulted in a change in criteria used to decide on the type of replacement. Now, not every patient receives the highest quality hip replacement. The choice of replacement is based on the utility of the replacement to the patient. If a patient is not physically active for reasons other than a broken hip, the costliest hip replacement which provides maximum mobility may not be the most cost effective choice. A replacement of lesser quality may allow the patient to have the mobility

he/she is capable of within the other constraints. This has required the orthopedic unit to focus on medical outcome measures to evaluate the extent of recovery to normal function. Before, cost effectiveness became a factor, almost every patient was provided the highest quality replacement alleviating the need to evaluate medical outcomes. In other words, efforts to improve the cost effectiveness of a procedure has also increased the extent to which medical outcomes are examined.

In summary, evidence from both hospitals suggests that medical outcomes had not been evaluated very well in the past. Established medical and/or hospital procedures were used without an examination of their impact on health status of patients. With the decrease in availability of funds, both hospitals have directed attention to examining their procedures with the purpose of eliminating practices that do not have a clear positive impact on a patient's health status. In other words, as a result of an increase in administrative pressures to become more efficient there is a greater use of outcome measures that are underpinned by medical beliefs and values.

Conclusion

In this chapter, the findings of the study were discussed. The first section presented evidence related to the 7 propositions presented in Chapter 4. The propositions found varying degrees of support. Propositions 1 and 2 were supported because Hospital A had made greater efforts to oppose the external changes. Proposition 3 was supported because both hospitals had tried to portray compliance even as they tried to avoid changes. Data related to propositions 4 and 5 suggested that there was a lack of support for them. Hospital A seemed to have made more changes than Hospital B. However, it was argued that the observed

variance from the propositions may be attributed to the perception that the external changes were inevitable which prevented Hospital A from ignoring internal changes. The fact that Hospital A had made more changes than Hospitals B was attributed to the difference in resources available to the two hospitals. Proposition 6 found weak support suggesting administrators were facing less resistance from the medical staff. Also there was no evidence against it. Finally, Proposition 7a was not supported while 7b was supported because both hospitals had tried to encourage administrative beliefs and values. This variance from predicted behavior was also attributed to the reasons given for lack of support for Proposition 4 and 5.

The second section presented evidence related to a finding not addressed in the propositions. Although the framework used for the study suggested that an increase in administrative pressures would increase focus on economic aspects of the delivery of health care, it also resulted in increased attention to medical outcomes.

CHAPTER EIGHT

CONCLUSIONS AND IMPLICATIONS

The purpose of this chapter is to provide a summary of the study. In the first section an analysis of the strengths and limitations of different aspects of the study are presented. The second section examines some of the findings to understand and explain some conclusions that may be drawn from them. Finally, some implications of the findings for the study of organizational performance and organizations in general are suggested.

The organizational literature suggests that measures of performance are underpinned by the values, beliefs and interests of the person or group of people who create and/or use them. They are products of negotiations between powerful internal and external constituencies of an organization. Using insights from institutional theory, the process through which measures of performance are produced was framed as an interaction among internal constituencies and external institutions. The purpose of this study was to examine the changes in measures of performance used in organizations as a consequence of changes in external institutions. The empirical work was conducted in two hospitals in Alberta. Before drawing conclusions from the findings of the study and suggesting implications for research and practice, the strengths and limitations of different aspects of the study are examined.

8.1. Analysis of the Study

After a review of the organizational effectiveness literature, the first part of the study was to develop a theoretical framework that adequately described the influence of external and internal beliefs and values on measures of performance used in organizations. The organizational literature on interpretive schemes (e.g., Ranson et al., 1980), ideology (e.g., Meyer, 1982; Meyer & Starbuck, 1993) and power (Pfeffer, 1981; Walsh et al., 1981), along with the organizational effectiveness literature (e.g., Pennings & Goodman, 1977) provided a way to conceptualize the link between beliefs and values in an organization and measures of performance. It was argued that organizations consist of internal constituencies that share similar beliefs and values, and also have common interests. The measures of performance used in an organization reflect the values and beliefs of

the most dominant constituency, and also meet their interests. Institutional theory was drawn on to conceptualize the impact of external beliefs and values on measures of performance used in an organization. Since it stresses the role of societal beliefs and values in external pressures faced by an organization, it provided a framework to examine external pressures on organizations.

8.1.1. Constituencies in a Hospital.

The general framework which was shown in Figure 2.2 was adopted for hospitals as illustrated in Figure 4.1. It was suggested that there are two dominant constituencies in a hospital. Although there may be overlaps in the values and beliefs in the two constituencies, one is comprised of doctors who espouse medical beliefs and the other of administrators who espouse administrative beliefs. These two constituencies interact as they influence the measures of performance in a hospital.

The use of two constituencies resulted in a simplistic representation of a hospital, however, as seen in Section 6.1.4., evidence indicated that the two dominant groups in both hospitals were administrators and doctors. There was evidence during the research, however, that nurses as a group, were emerging as a dominant and separate constituency in hospitals. But this was not a concern in this study because their values and beliefs were not independent of those espoused by the other two constituencies. In other words, the values and beliefs of nurses that were apparent in the interviews could be categorized as either administrative or medical. Also, the nursing staff was not yet powerful enough to play a major role in the establishment of measures of performance. Therefore, having two constituencies was a reasonable way to conceptualize the power structure, and hence the composition of values and beliefs, of a hospital.

8.1.2. Two Institutions in Health Care.

The framework in Figure 4.1 also indicates that a hospital is exposed to pressures from two institutions. Using Alford's (1975) distinction between 'professional monopolists' and 'corporate rationalizers', it was argued that there are two dominant institutions in the health care arena. One formed around the beliefs and values of the medical profession and the other around those of the health care administrators. It was suggested that because of the historical dominance of the medical profession, even the technical pressures on hospitals can be framed as institutional pressures. In other words, the technical requirements of scientific medicine may be viewed as institutional requirements because they are not exposed to challenges in the 'market', and are accepted based on approval by the medical profession. Evidence from the study, discussed in Section 7.2, indicated that it was quite an accurate conceptualization of the way in which medical requirements are adopted in hospitals.

Another concern, during the design of the study, was the need to identify the carriers of the values and beliefs of the two institutions. Table 4.1 described some features of the two institutions that were used to contrast them. It was suggested that people associated with the provision of care, that is the medical staff and nursing staff, were more likely to espouse medical beliefs and values while people involved in the administration of hospital services would be likely to hold administrative values and beliefs. Although there was some difficulty in identifying people whose values and beliefs could be categorized as only administrative or medical, in almost all cases it was quite clear that people in administrative positions were carriers of administrative beliefs and values and those involved in the delivery of care had medical beliefs and values. It was easier to conclude that administrators held primarily administrative beliefs and values

than it was to conclude that physicians or nurses held primarily medical values and beliefs. The difficulty with physicians and nurses arose because all those interviewed had administrative responsibilities in the hospital. As a consequence, they not only had an understanding of the administrative perspective, but were also sympathetic to it. This difficulty might have been reduced if physicians and nurses who did not have administrative responsibilities were also interviewed. However, despite the difficulty in clearly identifying carriers of different beliefs and vlaues, having two sets of values and beliefs in the conceptual framework was a useful way to differentiate beliefs and values which in their 'ideal' form contrast with each other.

8.1.3. Measures of Performance.

As shown in Figure 4.1, the interactions among external institutions and internal constituencies influence, and are influenced by, measures of performance. While designing the study, it was assumed that it would be possible to examine hospital documentation and find a change in measures of performance--old measures dropped and new ones added. However, this was not possible for two different reasons.

Firstly, access to internal documents was difficult. In Hospital A, although several documents were made available to the researcher, it was difficult to conclude from them that a systematic change in measures of performance had occurred. Since the documents were descriptions and results of studies designed to examine the cost of treatment procedures, and descriptions of specific programs designed to implement cost saving practices, they extensively highlighted the cost based evaluation of hospital performance. However, it was difficult to conclude from them that these same evaluation criteria were used in actual decision making. This would have been possible if documents related to actual decisions were

accessible, but, this was not the case. In Hospital B, which had just been moved to a new location, documents were either lost or not been re-arranged to allow easy access. However, in the researcher's estimate, these documents would not be easily accessible to him even if they were readily available.

Secondly, there were no 'new' measures of performance as a result of the changes. In other words, a measure like 'Length of Stay' was not developed as a result of the recent external changes. Hospital performance had been evaluated based on that criterion even before the government initiated its plans. However, the change has been in the importance attached to 'Length of Stay' relative to other measures of performance, and also relative to the importance it was given before recent changes. This change cannot be inferred from the existence of the measure itself, but from its impact on internal decision making.

The changes in measures of performance was inferred from interviews with organization members who said that they had started focusing on administrative issues, and from procedural and structural changes that have been initiated in the hospitals which also reflected the use of administrative measures of performance. Since access to documents about actual hospital decisions were not available, this was the most suitable way to examine the changes.

8.1.4. Research Methodology.

The case study method was selected for the study. Since the theoretical framework had been developed based on literature on health care systems outside Alberta, it was expected that some modifications may be necessary during the research process. It was also expected that people in the health care system would still be trying to understand the changes during the time of the research so the best way to understand their response was to speak to them as they developed their position.

The experience during the study suggested that this method was the most suitable. According to the initial design of the study, as discussed above, the researcher expected to examine documents to infer changes in measures of performance. When there was a perception that these documents would not be available, the focus was redirected towards the interviews where questions about measures of performance were followed more closely. This flexibility was a strength of the methodology. Further, the finding about increased attention to medical outcomes would not have been established if the research method had not allowed the researcher to adjust the interview guide during the study. In other words, the case method was one of the strengths of the study.

8.1.5. Power.

Power was a central feature of the framework. It was suggested that all else equal, the measures of performance used in a hospital should reflect the values and beliefs of the most powerful constituency. It was also implied that, all else equal, the measures would conform with the values and beliefs of the most powerful or legitimate institution. It was argued that a change in legitimacy of an institution would affect the power of constituencies in an organization. In other words, if the administrative institution gains in societal legitimacy, the administrative constituency will gain in power within a hospital.

However, power, both within and outside a hospital, was difficult to measure. Change in power of institutions was assumed in the framework and the assumption was verified based on interviews presented in Chapter 6. However, the conclusions about the change in power of institutions was tentative. Similarly, conclusions about change in the power of constituencies within the hospital presented in Chapter 7 was tentative. Part of the reason, as discussed in Section 7.1.4, was that it was difficult to frame direct questions about power. Further, it is

difficult for people within a hospital to make any reliable estimate of changes in power. Therefore, there is a need to find some other way to establish changes in power .

8.2. Conclusions

This study provides empirical support for theories that suggest that measures of performance are outcomes of a process of negotiation among various constituencies in an organization and external institutions in its domain. Most earlier studies, with a few exceptions (e.g., Miles & Cameron, 1982; Zammuto, 1982), have been either conceptual (e.g., Goodman & Pennings (eds.), 1977; Cameron & Whetten (eds.), 1983) or have assumed 'existing' measures of performance to examine organizational effectiveness (e.g., Tsui, 1990). Quinn & Rohrbaugh's (1983) analysis, although empirical, is based on the survey of a group of researchers. In this study, changes in measures of performance were examined in a real situation in which there had been a change in the institutional pressures experienced by hospitals.

It can be concluded from the findings of the study, which examined changes in the measures of performance used, that measures of hospital performance are not absolute. The measures in use reflect the beliefs of those in positions of power and normally serve their interests. Prior to the recent changes in the health care system, the medical institution had a high social approval,[1] and members of the medical profession were dominant within hospitals. As a result,

[1]It is still the most powerful institution in health care but has experienced a decay in its legitimacy in society.

the measures of hospital performance in use were predominantly based on medical values and beliefs.[2]

As discussed in Chapter 3 and verified in Section 6.1.2., the increased administrative or economic pressures from new government regulations suggest an increase in acceptance of the administrative institution, and also a relative decline in dominance of the medical institution. Evidence presented in Chapter 6 indicated that this has resulted in changes in the power structure within hospitals leading to an increase in power of administrators. As a consequence, there has been an increase in the use of economic based measures of performance. Hospital performance is considered effective if it meets medically desired outcomes, and at the same time makes efficient use of resources. The changes occurred as a result of a political process that involves the interaction among the beliefs of two institutions and two constituencies who have an interest in establishing measures of performance.

The conclusion that measures of performance used in a hospital reflect the beliefs and values of its dominant constituency and the dominant institution in its environment does not depart significantly from earlier assertions about measures of organizational performance. As mentioned in Chapter 2, several prominent organizational theorists (e.g., Cameron & Whetten, 1983; Goodman & Pennings, 1977; Quinn, 1988; Zammuto, 1982) have concluded that there cannot be one universal model of organizational effectiveness. They suggest that, among other things, measures of performance reflect the interests of the constituencies that use and/or advocate them, and measures that become institutionalized match the beliefs and values of the most powerful constituencies and institutions. While Pennings and Goodman (1977) argue that performance criteria are established by

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[2]However the findings in the study suggest that even these were not rigorously implemented or applied.

powerful constituencies within the organization, Pfeffer & Salancik (1978) view them as being imposed by external constituents. Some specific conclusions that may be drawn from the study are discussed next.

8.2.1. Values, beliefs and interests, and measures of performance.

One of the assumptions in the study was that measures of performance are underpinned by values and beliefs of those who develop and/or advocate them and also meet their interests. However, this assumption was based largely on non-empirical literature. This study provides evidence for that link between values, beliefs, and interests of a constituency and measures of performance it advocates.

In Section 6.1.1. it was shown that medical professionals share a set of values and beliefs that are different from those shared by hospital administrators, and this causes them to use different types of measures of performance. Medical professionals acquire beliefs and values during their professional training and socialization that constrain them into evaluating hospital performance based on micro criteria, that is, on the ability of the hospital to provide clinical support for the treatment of individual patients. They believe that their first obligation is to restore the health of their patient and all other issues are secondary to that. This also translates into the use of measures of performance that focus on medical issues. As a result they neglect other issues that are also important in the delivery of health care.

It was suggested in the same section that the use of measures of performance that are underpinned by medical beliefs and values is further encouraged by the division of labor in a hospital and the nature of association physicians have with a hospital. Since hospitals are occupationally structured (Scott, 1983b), physicians in a hospital are responsible only for the medical effectiveness of their treatment practices. Their role does not require them to be

concerned about the economic impact of their activity. Further, physicians do not consider themselves as part of a hospital in the same way as other employees. They perceive themselves as 'individual contractors' working for a hospital with a contract to perform certain medical functions. They are not required to pay attention to other aspects of the delivery of health care.

In Section 6.1.4, evidence that suggested a link between interests and measures of performance was presented. It was argued that some of the opposition from physicians to modifications in the hospitals that were a result of a greater emphasis on administrative measures of performance may be attributed to a clash of interests. Some of the changes were opposed because they had a potential to cause a decrease in physician earnings, while others were opposed because of their impact on a physician's life-style. In addition, some resistance to change was related to the issue of autonomy of practice. In other words, some of the opposition to the use of administrative measures of performance was not based on a clash of values and beliefs, as suggested above, but due to a clash of physician interests which vary from material interests like earnings to professional interests like autonomy of practice.

In contrast to the medical staff, health care administrators focus on non-medical aspects of health care. Their training in health administration directs their attention towards administrative aspects of the delivery of health care. In Section 6.1.1. evidence that suggested that administrators in a hospital use macro criteria rather than micro criteria was presented. Unlike physicians, administrators evaluate the performance of a hospital in terms of the impact on a population of patients rather than any one patient. Further, their focus is on administrative effectiveness of treatment provided rather than on medical effectiveness. In other words, they emphasize measures of performance like, 'Length of Stay' which evaluates the non-medical efficiency of a patient's hospital stay. In fact, the actual

measure used in decision making is the average 'Length of Stay' for all patients that undergo a particular procedure or are admitted to a particular unit. This measure indirectly indicates the economic efficiency of providing a particular treatment or operating a unit.

While it was difficult to assess the immediate material benefits that would be gained by hospital administrators if administrative measures of performance are adopted, it was clear that it would mean more power and prestige in a hospital. If administrative measures of performance were required to be emphasized, it would mean that hospital administrators would have a greater impact on hospital decision making.

It may be concluded that the study provided empirical evidence to support the theories that propose that measures of performance are underpinned by the beliefs and values of those who develop and/or advocate them, and also serve their interests more than the interests of others.

8.2.2. Power of an institution to influence an organization.

This study provides evidence of a linkage between the power of an external institution to impose its norms on an organization and the acceptance of the norms in society. In other words, the study suggests that an institution is powerful enough to influence an organization only if its core values and beliefs are accepted by society at large. As discussed in Chapters 3 and 4, the medical institution, which is built around the values and beliefs emerging from scientific medicine, was accepted by society as the most legitimate institution in health care. This provided representatives of the institution the power to influence the measure of performance used in hospitals. The dominance of medical norms is apparent in structures and procedures in a hospital. As suggested by Scott (1983b), hospitals were occupationally structured rather than administratively structured. Also, all

hospital procedures were designed to conform to the requirements of scientific medicine without any significant attention to administrative needs.

However, this study was premised on the assumption that there was a 'new' administrative institution in health care that had acquired societal legitimacy and was powerful enough to impose its norms on hospitals in Alberta. In Chapter 6, evidence that indicated that hospitals were indeed experiencing pressures from this institution was presented. It was verified that hospitals were being forced to conform to administrative norms, that required them to become more cost effective in their operations. The changes in hospitals that resulted from pressures from the administrative institution, as discussed in Chapter 7 indicated a greater emphasis on evaluating hospital performance based on measures of performance that reflect administrative values and beliefs. Hospital structures and procedures were being modified so that hospital practices would be more cost efficient.

It is argued that the ability of the administrative institution to force hospitals to conform to its requirements is related to the increased acceptance of its norms in society. In Chapter 3 it was suggested that the involvement of any level of government in health care has been a response to the demands from society. It was indicated that the federal and provincial governments actively participated in the provision of health care because of encouragement and popular support for their actions from the public at large. The recent initiatives by the federal and provincial governments to control health care costs by re-organizing the health system also has the support of the public. Concern with the government deficits and rising health costs, has led to a greater acceptance of the role of the administrative institution in health care. It is because of this greater acceptance of the norms of the administrative institution in society that the institution is powerful enough to impose its norms on hospitals.

The administrative institution in health care existed even before the recent government initiatives. However, as long as society did not provide it with the legitimacy to play a significant role in the health care system, its representatives both within and outside hospitals did not have the power to implement systems that reflected its norms. As discussed in Chapter 7 and in Section 8.1., there had not been significant changes to measures of performance because most existed even before the recent government policies. However, there was evidence that there is a greater emphasis on measures of performance that are underpinned by administrative beliefs and values. In other words, the increased legitimacy of the administrative institution has forced hospitals to pay attention to measures of performance that were neglected.

It may be concluded that the study provides empirical evidence for the assertion that institutions acquire their power to influence organizations based on the degree of acceptance of their core values and beliefs by society. The greater the societal support for an institution, the more powerful it is in imposing its norms on organizations.

8.2.3. Power of an organization to oppose institutional pressures.

In Section 4.5 it was argued that organizations acquire power to oppose institutional pressures based on the societal approval for their role in society. It was suggested that Hospital A had a greater level of societal approval than Hospital B and hence was more likely to be able to oppose the recent government policies. Evidence in support of this assertion was presented in Section 7.1.1.

However, it was suggested, based on data from the study, that another reason why Hospital A was more able than Hospital B in opposing some of the changes was its access to large resources. There was evidence that Hospital A was able to allocate resources, both skilled personnel and financial support, to develop

its strategies to oppose the recent government policies. These resources allowed the hospital to develop a good understanding of the intricacies of the new policies and present very strong arguments against them. The lack of resources in Hospital B did not allow it to examine the real impact of the new policies to a similar extent, preventing the hospital from developing sound opposition strategies.

Resources influence organizational power in another way. Institution theory suggests that if an organization does not conform to the norms of the dominant institutions in its domain, it is likely to affect its ability to acquire resources. In this study, the connection between non-conformance and reduction in resources was very direct. Since the funding formula implemented by the government rewarded improvements in a hospital's HPI, any hospital that did not comply lost money. Therefore, even as they opposed the new policies both hospitals had made changes to become more efficient. However, if either of the hospitals had surplus resources or could access another source of resources, this would have increased its ability to challenge the current changes. Both hospitals have tried to raise funds through their hospital foundations but these are not enough to offset the losses from non-compliance. It is argued that if they were, there would have been a greater probability of sustained opposition.

It may be concluded that an organization acquires power from two sources when trying to oppose institutional pressures. One source is the legitimacy it has in society. The second source is the availability of resources.

8.2.4. Power of a constituency to influence measures of performance.

The literature suggests that measures of performance reflect the values and beliefs of powerful internal constituencies. This study suggests that the 'power' of a constituency in an organization is influenced, not only by the circumstances

within the organization, but also by the extent to which their values and beliefs conform with those of dominant institutions in its domain.

If power in an organization is based entirely on internal factors, such as control over resources or criticality of activity (Hickson et al., 1971), then the medical staff in both hospitals is still the most dominant constituency. As discussed in Section 6.1.4., the power of the medical constituency can be inferred from the fact that its approval is necessary for changes in the hospital to be implemented successfully. However, in recent times their ability to oppose internal modifications has been reduced. This change has occurred without any significant change in work responsibilities within the hospital. It is argued that the change in power has occurred because of the match between the beliefs and values of the administrative constituency and the 'new' dominant institution.

It may be concluded that organizational constituencies acquire their power from internal as well as external sources. The external source of power is the correspondence between its values and beliefs and those of a dominant institution.

8.2.5. Responses by an institution to challenges from other institutions.

The increased focus on medical outcomes in both hospitals provides a useful insight into how institutions are created and sustained. In Section 2.3.2. it was suggested that institutions emerge from conventions adopted by individuals and/or groups. These conventions become legitimate social institutions when their advocates are able to develop parallel cognitive conventions that provide a link between the conventions and the 'nature of the universe'. The legitimacy of an institution is further enhanced and entrenched when it receives the backing of the state. For example, the medical institutions gained legitimacy in society because large sections of the public developed a greater faith in scientific treatment practices than other modes of healing. This legitimacy acquired permanancy when

state legislation restricted the practice of medicine to those who received approval from the medical institution. It is argued now, based on the findings of this study, that institutions may face challenges when society and the state is under strain to examine the benefits of their acceptance. When a threat has the potential to undermine an institution, it leads to a re-examination of its conventions in order to 're-establish' the link between them and the new situation.

Since the medical institution was overwhelmingly dominant in health care, its conventions were rarely challenged. As a consequence, hospital practices or technology that met its approval were almost always adopted. Almost the only way one could measure their performance was on the criteria of evaluation suggested by norms of scientific medicine. Due to a lack of challenge from any other institution, some hospital practices that had become established procedure would not have found approval under different circumstances. In other words, some medical conventions would not have found approval from the administrative institution. If the administrative institution had been powerful, it would have forced the medical institution to modify some of their conventions in order that they be sustained.

The change in criteria concerning hip replacements, as discussed in Section 7.2., is an example of a change in medical convention as a result of challenges from the administrative institution. As a consequence of the new pressures, the medical institution has had to modify its conventions in order to be able to meet the challenges from the new institution. The old convention was challenged on the basis that providing an expensive hip replacement to a patient who is never going to utilize it is a waste of money. The new convention that provides different types of hip replacement based on need of the patient, does not compromise the medical outcomes, and at the same time it does not attract criticism from the administrative institution. In other words, the medical institutions has modified its 'old'

convention such that the 'new' convention can sustain challenges from the administrative institution.

It may be concluded be from this study, that, as suggested by Douglas (1986), institutional conventions are sustained when advocates of the institution are able to provide arguments that illustrate a link between the conventions and the 'nature of the universe'. When the 'nature of the universe' changes, it leads to changes in the conventions and also to modifications in the arguments that are required to establish a link between them. In other words, when new institutions acquire legitimacy, other institutions have to respond by making changes in order to deflect challenges that may emerge from it.

Institutional theory in organizational analysis has focused largely on the response of organizations to institutional pressures. This study suggests that the same situations provide an opportunity to examine the response of other institutions to changes in the legitimacy of an institution.

8.3. Implications for Research

It may be inferred from the conclusions discussed above that measures of performance are products of human activity and hence have no ontological status outside the context in which they are produced (Berger & Luckmann, 1967; Zammuto, 1982). Measures of performance in organizations reflect the beliefs and values of the dominant internal constituencies and institutions in its domain. The conclusions of this study have implications for research in health care organizations and organizations in general.

8.3.1. Organizational performance.

At one level, the conclusions from the study raise some important questions concerning the evaluation of hospital performance. Can measures of hospital performance developed in a particular context be used to evaluate hospitals in another context? Can measures of hospital performance developed in the context of one society be used to evaluate hospitals in another society? This study would suggest that there are limitations to the extent measures developed in one context have meaning in an unrelated context. If there are significant differences in societal expectation from the health system or hospitals between societies, they will be reflected in the measures of performance. Further, the nature of interactions among different constituencies may vary among different health systems, leading to differences in dominance. These differences will also be reflected in the measures of performance. Hence, the utility of applying measures from one context to another may be questionable.

The conclusions discussed above, also have implications for comparisons across industries. Can measures of performance developed for a particular industry be used to evaluate performance in other industries, even if they operate in the same societal context? For example, can measures of performance developed in the automobile industry be used to evaluate organizations that provide services? Once again, this study would suggest that there are limitations to the extent this can be done.

Since most studies of organization, either explicitly or implicitly, include some notion of organizational performance in their analysis, it is important that researchers be aware of the definitions of performance they utilize. Organizations perform within the constraints imposed by powerful internal constituencies and external institutions, hence, an organization is effective if it meets the requirements desired by them. Therefore, unless a researcher explicitly chooses to

evaluate performance from a particular perspective, measures of performance that are used in an evaluation need to reflect the values, beliefs and interests of the organization's constituencies and institutions. Oftentimes, when a study does not explicitly examine organizational performance, researchers tend to be unaware that the perspective used may not be relevant to the situation .

Research that compares performance of organizations that are apparently in the same domain may have limitations if it does not account for differences in context. The differences may be due to variance in values and beliefs in different social situations, or due to changes in them over time. This study examined modifications in measures of performance as a result of changes in context over time. Referring to such situations, Zammuto (1982) wrote

> "The fact of societal change has a major implication for organizations and assessment of organizational effectiveness. What is likely to be effective performance at one time is likely to be ineffective at another because the social context in which performance occurs changes. Organizational effectiveness is situation-specific. The definition of what is effective performance changes as the context in which performance occurs changes" (Zammuto, 1982:59).

This conclusion has implications for organizational performance research, especially research that specifically examines the performance of organizations over time. If societal expectations from organizations change over time, specific measures of performance which are not responsive to such changes may not be appropriate.

Zammuto (1982) argued for an evolutionary framework for the study of organizational performance.

> Instead of examining organizations and organizational performance in isolation as do other models of effectiveness, the evolutionary model counsels the evaluator to examine the organization within its environment" (Zammuto, 1982:75).

He argues that, while there are benefits to the analytical separation of organizations from their environments, there is a potential problem with allowing that to direct attention away form societal processes.

In line with these arguments, it is suggested that researchers need to include the role of an organization's context in understanding organizational performance. One can go further to argue that any research in organizations needs, either explicitly or implicitly, to accommodate the role of society. This suggestion is similar to Friedland & Alford's (1991) assertion that organizational behavior cannot be properly understood without locating organizations in a societal context. An organization's goals and priorities are influenced by the beliefs, values and interests of its internal and external constituents, hence studies of organization need to reflect that in their research design and conclusions.

8.3.2. Resource Dependence Theory

Pfeffer and Salancik (1978) in their book "The External Control of Organizations: A Resource Dependence Perspective" argued that organizations should be understood in terms of their interdependence with their environment. However, unlike institutional theory which incorporates the role of external influences on organizational action through the impact of taken for granted societal norms, resource dependence theory provides a more 'rational' explanation for organizational actions. It suggests that organizations must interact with other organizations in their environment to secure necessary resources for survival. These external entities that, to varying degrees, control the necessary resources function as constraints on an organization. Hence, organizational action may be understood as attempts by the organization to acquire autonomy from organizations in its environment. An organization tries to achieve the autonomy by

reducing its dependence on other organizations, and gains power by increasing the dependence of other organizations on itself.

The theory suggests that the greater the dependence on the environment for resources, the greater the need for an organization to respond to dictates of the organizations that controls those resources. Hence, if an organization requires large quantities of a particular resource or the resource is very critical, even if required in small quantities, then the organization is likely to be in a weak position relative to its environment. Further, if that resource is controlled by one or a few external organizations who can regulate the flow of the resource, the dependence is even more constraining. In other words, if an external organization has control over a resource that is very important to an organization's survival, it is in a strong position to influence the behavior of the dependent organization.

In this study, both hospitals were dependent on the government for their funding, which is a critical resource. If the study had been framed in terms of resource dependence theory, Alberta Health would have been conceptualized as a powerful organization in the environment which had control over a resource that was critical for the survival of hospitals. In other words, Alberta Health was in a strong position to impose its will on the dependent hospitals. Hence, when the government made changes to the health care system, which were also reflected in the funding plan such that any hospital that did not make changes to become more efficient would experience a reduction in funding, both hospitals were coerced into making the changes. Put differently, the changes in the hospitals were not due to changes in the power of institutions but due to the threat by an external organization to restrict the flow of a critical resource.

While there was considerable evidence for the fact that the need to maintain a flow of funds did pressurise hospitals to make changes, this does not explain why the government initiated the policy changes. As discussed in 8.2.2., the

administrative institution was dormant as long as it did not have legitimacy in society. However, it has recently acquired the legitimacy to impose its norms. Once the legitimacy exists, Alberta Health has been able to use the dependence of hospitals in its favor to make them respond. It is the change in power of the administrative institution relative to the medical institution that has enhanced the criticality of funds for the hospitals. Prior to the recent changes, the hospitals were still dependent on Alberta Health for their funding, but funding procurement was not as critical as it is now. Therefore, although some aspects of the changes may be explained using resource dependence theory, a better explanation is provided by drawing insights from both.

Hence, the changes in the health care sector in Alberta can be explained through arguments that draw simultaneously on both institutional and resource dependence theories. The ability of the administrative institution to exert pressure on hospitals in Alberta can be argued, using institutional theory, to be the result of its increased legitimacy in society. Some of the changes within hospitals may also be explained, as done in Chapter 7, as responses to changes in the institutional environment. However, the magnitude and pace of changes in the hospitals may be better explained through resource dependence theory, which would suggest that the hospitals have made changes to conform with Alberta Health's new policies because they are dependent on it for almost all their funding. Since lack of changes in one year is likely to result in loss of critical funds in the next year, the changes have been more forthcoming than they would have been if the hospitals were responding to a change in norms without immediate resource implications.

This implies that institutional and resource dependence theories can complement their explanatory powers if used in combination. Hence, as stressed again in Section 8.3.3., there is a need for greater integration between the

arguments of resource dependence and institutional theory in order to provide a more comprehensive explanation of organizational actions.

8.3.3. Institutional Theory

Accommodating Resource Dependence Theory. In this study, institutional theory was used to conceptualize external pressures on organizations. It was suggested that the power of an institution to impose its norms on an organization was based on its legitimacy in society, and the ability of an organization to oppose those norms was also related to its legitimacy. As discussed in Section 8.2.2., the administrative institution had acquired enough acceptance among Albertans to allow it to impose its norms on hospitals. However, the framework developed in Chapter 2 and 4, underemphasized the role of resources in enabling institutions to apply coercive pressures, and allowing organizations to neglect those pressures.

Although Oliver's (1991) analysis of organizational responses to institutional pressures, which was extensively drawn on to develop the propositions for this study, incorporates concepts from resource dependence theory to explain opportunistic actions by organizations, this study relied more on institutional explanations. However, the findings suggested that resources played a greater role in determining the response of hospitals than had been anticipated in the propositions.

As discussed in Section 7.1.1, external responses by the hospitals was influenced by their ability to allocate resources to understand and develop formal challenges to government initiatives. In Sections 7.1.3, and 7.1.5, it was argued that propositions based on simple legitimacy arguments did not find support because noncompliance with new government policies was likely to result in drastic reductions in resources. As discussed in Section 8.3.2, hospitals in the province of Alberta receive almost all their funds from the provincial government,

and the Acute Care Funding Formula was designed in such a way that non-compliance in one year would result in decreased funds in the following year. This strong dependence on the government for resources, led hospitals to make quick changes that may be better explained by resource dependence rather than institutional arguments.

As already suggested in Section 8.3.2., this implies that there is a greater need for integration between resource dependence theory and institutional theory. Institutional theorists have been aware of the need to incorporate some resource dependence arguments into institutional theory. Oliver (1991), while explaining her reasons for trying to integrate institutional and resource dependence theories, argued that the two theories provide mutually supportive explanations of organization behavior. While traditional institutional arguments explain the taken for granted aspects of institutions that constrain organizational behavior, resource dependence provides a better understanding of some conscious decision-making within given resource constraints. The results of this study also suggest that the explanatory power of institutional theory may be enhanced if it can accommodate insights from the resource dependence perspective.

The suggestion for incorporating insights from outside institutional theory to broaden its applicability is consistent with suggestion by DiMaggio (1988) and DiMaggio and Powell (1991). DiMaggio's (1988) argued that traditional institutional theory has focused on "factors that make actors unlikely to recognize or act on their interests...[and] on circumstances that cause actors who do recognize and try to act on their interests to be unable to do so effectively" (DiMaggio, 1988: 4-5). He suggested that there should be a greater emphasis on incorporating interest and agency in institutional theory to explain behavior driven by perceived interests. More recently DiMaggio & Powell (1991) in the their introduction on 'New Institutionalism' have also called for modifications to old

institutional theory by accommodating arguments from other perspectives, to enable the 'new' institutional theory to provide a more comprehensive explanation of organizational behavior. The suggestion for greater integration between resource dependence and institutional theories may be seen as another step towards achieving that 'new' institutional theory.

Influence of Organizational Constituents. Institutional theory has examined the impact of institutions on organizations. However, there has been a lack of focus on the characteristics of the organization that may influence its actions. Oliver's (1991) analysis made reference to the role of organizational politics but her organizational strategies were developed based entirely on characteristics of institutions. This study tried to understand the impact of internal constituents of a hospital on its response to pressures from a 'new' institution.

Propositions 1, 5, 7a and 7b tried to examine the impact of power of internal constituency on organizational actions. However, it was difficult to separate the effects of power of internal constituency from the power of the hospital. Further, the government pressures and resource implications were so strong that, in broad terms, there seemed to be considerable similarity in the response of both hospitals. Hence, it is difficult to make firm statements about the impact of power of an organization's internal constituencies on it's actions.

However, the idea that the internal composition of an organization affects organizational action has enough empirical support to indicate that it should also affect its response to institutional pressures. Studies that use institutional theory should include these affects in their analysis.

Institutionalization and Deinstitutionalization. Institutional theorists have focused largely on societal processes by which organizations acquire

endorsements as a result of compliance with institutional norms. There has been an emphasis on the examination of persistence and endurance of institutionalized practices that do not meet the standards of market efficiency. However, there has been little attention to societal processes that lead to the initial acceptance or ultimate erosion of institutions (Oliver, 1992). DiMaggio (1988) and DiMaggio and Powell (1991) suggested that institution theory should incorporate interest and agency to understand the dynamic processes of institutionalization and deinstitutionalization rather than focus only on stability and continuity.

Douglas (1986) argued that institutions acquire legitimacy when their proponents present a set of cognitive conventions that provide links between the institutional conventions and the 'nature of the universe'. Although the processes through which the medical institution acquired legitimacy in the early 1900s and the administrative institution has gained in prominence in recent times were referred to, they were not examined in this study. If institutional theory has to be broadened to understand and explain organizational behavior, these processes need to be examined. A better understanding of how institutions acquire their legitimacy may provide insights into the reasons why they develop and persist.

A recent conceptual study by Oliver's (1992) focused on the antecedents of deinstitutionalization in organizations to examine the processes through which institutionalized organizational practices are discontinued. However, in addition to examining changes in organizational practices as institutions decline and new ones gain prominence, there is also a need to examine how institutions themselves respond to challenges from other institutions. As discussed in Section 8.2.5, the change in the criteria used to decide hip replacement may be seen as a response of the medical institution to challenges from the administrative institution that is threatening to erode it. There is a need for more empirical work that examines the erosion of institutions. An understanding of such processes will allow institutional

theory to provide a more comprehensive understanding of not only stability and continuity, but also of dynamic organizational and institutional change.

In conclusion, it can be said that this study provided empirical support for assertions that suggest that measures of performance are underpinned by the values, beliefs and interests of the people who develop and/or use them. The results of the study have implications for the study of organizational performance. They suggest that practitioners and researchers should rely on an evolutionary framework of organizational performance that reflects the beliefs, values and interests of powerful constituencies within an organization and in its environment. It should be able to accommodate variations in beliefs, values and interests among different organizational and environmental contexts, and changes in them over time.

The results of the study also have implications for the study of organizations. Institutional theory was extensively used to develop the framework for the study and provide explanations for the findings. Although institutional theory proved to be a very powerful in terms of explaining the phenomenon examined, it was found that resource dependence theory provided a better explanation for some of the empirical findings. This suggests a need for incorporating some resource dependence arguments into institutional theory in order for it to provide a more comprehensive explanation of organizational behavior. Further, this study suggests that institutional theory should be empirically applied to a broader range of organizational and institutional phenomena in order to further develop its explanatory capacity.

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Appendix 1

DESCRIPTION OF THE HOSPITAL PERFORMANCE INDEX (HPI)

1. Basic Unadjusted Severity Predicted Cost Per Discharge (SPC)

$$SPC = [Sum (N.Y.\ SIW\ *\ ALOSprov_i\ *\ C_i)] / [\ Total\ Discharges]$$

2. Hospital Bedsize and Teachingness Adjustment Factor (HAF)

$$HAF = e^{[0.000426(Bk-B) + 0.00428\ (Tk-T)]}$$

3. Actual Inpatient Cost Per Discharge (ACPC)

$$ACPC = \{Sum[\ Activity(inpatient)_j / Activity\ (total)_j] * Activity\ Cost_j\}/[Total\ Discharges]$$

4. Hospital Performance Measure (HPM)

$$HPM = [(SPC)(HAF) / (ACPC)]$$

5. Hospital Performance Index (HPI)

$$HPI = (HPM\ for\ Hospital) / (Average\ HPM\ for\ all\ hospitals)$$

Legend:

N.Y. SIW	- New York Cost Index Per Day for associated RGN group
ALOSprov	- Alberta Average Length of Stay for associated RGN group
i	- Specific RGN group
RGN	- Resource Group Number
Ci	- Number of Discharges in RGN group
Bk	- Number of Rated Beds for Hospital
B	- Provincial Average Number of Beds
Tk	- Number of Residents and Interns per 100 beds in a hospital
T	- Number of Residents and Interns per 100 beds in the province
Activity $_j$	- Number of units of each activity as in the Evans-Barer Formula
Activity Cost$_j$	- Total cost of each activity center

Appendix 2

List of persons interviewed

Name of Organization: Hospital A

Designation

Vice President (Finance & Corporate Information)

Vice President (Medical Affairs)

Vice President (Operations)

Vice President (Planning)

Vice President (Nursing)

Director (Nursing)

Director (Medical Records & Patient Reception)

Manager (Medical Records)

Director (Finance)

Nurse Manager (Orthopedics)

Nurse Manager (Emergency)

President, Medical Staff Executive &
Secretary, Medical Staff Advisory Board

Director, Division of Cardiology

Chairman, Medical Staff Advisory Board

Director (Communications)

Editor (Hospital Newspaper)

Pediatrician

Director (Nursing) -Pediatrics

Nurse Manager (Medicine)

Name of Organization: Hospital B

Designation

Director of Environmental Services

Nurse Manager (Emergency)

Director of Financial Services

Director of Diagnostic Imaging

Director of Laboratory Service

Assistant Executive Director

Executive Director

Chief of Medical Staff

Former Chief of Medical Staff

President, Medical Staff Association

Director of Nursing

Nurse Manager (Pediatrics)

Nurse Manager (Obstetrics)

Other persons interviewed.

Designation
Executive Director, Institutional Operations Branch, Alberta Health
President, Alberta Healthcare Association (Former vice-president at Hospital A)
Vice President (Planning & Support Services) of a Group of Long Term Care Hospitals. (Former President, Council of Teaching Hospitals of Alberta)

Appendix 3

Interview Guide for interview with President, Medical Staff Executive, & Secretary, Medical Staff Advisory Board, Hospital A (3.00 PM, Thursday, 5 November, 1992)

What are the recent changes in provincial health policy that have had, or may have, a significant impact on the University of Alberta Hospitals?

What in your opinion are the reasons behind these decisions? Why has the government made these decisions?

What is the nature of impact of these policy decisions on the work of physicians? Do you think the impact may be favorable? Do you have any concerns?

What are some specific changes? Why have these changes been made?

How well have these changes been accepted by physicians as a group? Why?

Do the changes influence the way in which hospital work is evaluated? How? Or are the changes a result of the way in which hospital work is evaluated?

Do you foresee a change in the method of payment to physicians who work in hospitals? Why?

How do you view the emergence/re-emergence of alternative forms of healing? Do you expect that it will happen?

Appendix 4

List of Letters/Document/Records Reviewed

Alberta Health, Acute Care Funding Plan Newsletter, Vol 1, Issue 1, July 1991.

Alberta Health, Acute Care Funding Plan Newsletter, Vol 1, Issue 2, September 1991.

Alberta Health, Acute Care Funding Plan Newsletter, Vol 1, Issue 3, November 1991.

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Alberta Health News Release, March 1, 1991

Alberta Health, Acute Care Funding Project : Project Overview and Future Funding Framework for Alberta Hospitals, March 1990.

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Hall, E. & Jacobs, P. A primer on Alberta's HPM and HPI, Research Notes, The Department of Health Services Administration and Community Medicine, Faculty of Medicine, University of Alberta, September 1991.

HMRI Newsletter, Vol 15, No. 3, May/June. 1990

HMRI Newsletter, Vol 15, No. 5, Sept./Oct. 1990

HMRI Resource Intensity Weight 1990 Re-Development Project, Final Project Report, September 1990.

Hospital A - Value Improvement Process (VIP) study in Coronary Artery Bypass Surgery.

Hospital A - A Case Study examining the implementation of the Total Quality Management (TQM) in Hospital A and another Edmonton Hospital submitted as a Master's thesis in Health Services Administration.

Hospital A - Annual Reports - 1989-90, 1990-91, 1991-92.

Hospital A - Medical Quality Improvement - Objective Occurrence Screening Program (Manual).

Hospital A - Vital Signs, All Issues (First Issue - September 1991).

Hospital A - Copies of letters(or their early drafts) to Alberta Health about recent policy affecting the Hospital.

Hospital A - Copies of letters from Alberta Health communicating health policy or clarifying issues in response to letters from the hospital.

Hospital A - Copies of Case Mix Profile (PRCP) for some units.

Hospital A - Copies of some communications to and from a consultant's firm that examined recent funding changes on behalf of the hospital.

Hospital A - Copies of internal letters/memos within the hospital on changes in the hospital.

Hospital B - "Report to the Community" , 1992.

Hospital B - "Report to the Community", 1986.

Hospital B - A Case study of Changes at the Hospital submitted as a Master's Project at the Faculty of Business, University of Alberta.

Hospital B - Role Statement Summary submitted to the Edmonton Regional Planning Authority on November 26, 1990.

Hospital B - Strategic Plan Summary as on November 13, 1990 submitted to the Edmonton Regional Planning Authority.

Hospital B - Supplement delivered with the Saturday, January 22, 1992 edition of a local community newspaper.

Kaul, J.B. (1992) An Integrated Case Mix Analysis of the Government of Alberta Inpatient Acute Care Funding Formula submitted as a Master's thesis in the Faculty of Mechanical Engineering, University of Alberta.

Newspaper articles from 'The Edmonton Journal'

Peat Marwick Stevenson & Kellog Management Consultants, Ambulatory Care Funding Project: Phase I Report, March 1990.

Appendix 5

List of first level codes developed during the coding of interviews

ADMINBLF	- Administrative Beliefs
ADMININT	- Administrative Interests
ADMINPOWER	- Administrative Power
ATTACK	- hospital challenging government policy
BARGAIN	- hospital negotiating with the government
BUFFER	- hospital avoiding compliance with new policy
CHALLENGE	- hospital challenging government policy
CHILDREN	- Children's Health Center
CODINGDIFF	- Difference in Coding
COMPLIANCE	- compliance with government policy
CONCEAL	- hospital hiding non-compliance
CONFLICT	- conflict
COOPTATION	- hospital seeking help from other people/organizations
DISMISS	- hospital ignoring government policy
ETHICS	- issues related to health care ethics
EXTERNALR	- External response
FACTS	- Facts about hospitals/government policy
FOUNDATION	- Foundation
HOSPPOWER	- Hospital Power
INFLUENCE	- hospital trying to influence others
INSTITUT1	- Medical Institution
INSTITUT2	- Administrative Institution
INTERNALR	- Internal Response
LEGITIMACY	-Legitimacy

MEDICALBLF	- Medical Beliefs
MEDICALINT	- Medical Interests
MEDIPOWER	- Power of Medical profession
MIDDLEMANGR	- Middle Manager
NEWSYSTEM	- Hospital after changes
OLDSYSTEM	- Hospital before changes
OTHERMEDS	- Non-scientific Medicine
OUTCOME	- Medical Outcome
PACIFY	- hospital trying to avoid compliance
PROCESS	- Process
PUBLICNEED	- Public Need
PUBLICWAST	- Waste in the health system caused by patients
TQM	- Total Quality Management
HABIT	- Compliance by habit
USERFEE	- User fee
HOSPITALA	- Hospital A
HOSPITALB	- Hospital B
HOSPMERGER	- Hospital Merger
HOSPSIZE	- Hospital Size
RESEARCH	- Research

Appendix 6

OUR MISSION

The University of Alberta Hospitals is committed to providing exemplary patient care and education in an atmosphere of compassion and scholarly inquiry while preserving the dignity and rights of patients and their families.

To meet the needs of those individuals entrusted to its care and to fulfill its obligations as an academic medical centre, the University of Alberta Hospitals will:

- offer a wide range of patient care and health promotion services essential to the community and the region including the development and delivery of highly specialized tertiary care programs;
- advance the health sciences by working in partnership with the University of Alberta and other institutions of learning to develop and carry out educational programs in a variety of health disciplines;
- promote, conduct and apply research in association with the University of Alberta and other agencies for the advancement of patient care;
- pursue and manage its resources effectively and respond to opportunities and changes in the health care system with boldness and innovation;
- adopt a leadership and collaborative role with other health care providers in developing health care programs and assessing the health care delivery system;
- generate a positive working environment that motivates staff and volunteers, fostering the productivity, pride and well-being of both the individual and the organization.

Appendix 7

THE STORY OF OUR LOGO

The colorful logo of Sturgeon General Hospital was specially designed in August of 1985 by Mr. Mitsu Ikemura, a local artist.

- The blue lines at the bottom of the logo symbolize the "S" of Sturgeon, and also indicate the District's rolling hills and rivers.

- The small building shape symbolizes the community served by Sturgeon General Hospital which, in turn, supports the hospital.

- The overall shape indicates the "H" of hospital for easy recognition. It symbolizes people (humanity) working hand in hand toward the mutual goal.

- The yellow circle symbolizes mutual goal, harmony, warmth of service, and people centered orientation.

Appendix 8

INPATIENT CLINICAL FUNDING/CODING DATA SHEET

PURPOSE:

To provide a format for physicians documentation of information required by Health Record Coders in order to appropriately assign CMG's for clinical funding

DIRECTIONS:

1. Stamp the upper right corner with the patient's imprint information.

2. Place Form HR 103 on each patient health record directly behind the Physician's Orders and Progress Report #9030.

3. The reliability of coding of interhospital comparisons in abstracting systems is enhanced by standardizing data reported. Intrinsic to this sequencing of codes, specific meaning is given to the first-listed diagnosis code and the first-listed procedure code:

   a) MOST RESPONSIBLE DIAGNOSIS:

      The diagnosis which describes the most significant condition of the patient, which is responsible for the greatest length of stay. In a case where multiple diagnoses may be classified as most responsible, choose the diagnosis for the greatest length of stay.

   b) PRIMARY DIAGNOSIS AND/OR ASSOCIATED CONDITIONS:

      In addition to recording the most responsible diagnosis, the physician should attempt to describe a diagnosis describing another important condition which usually has a significant influence on the patient's length of stay and/or significantly influences the management/treatment of the patient. The recording of primary diagnosis is important for assessing the patient's length of stay in hospital and the assignment to CASE MIX Groupings (CMGs)

   c) COMPLICATIONS AND/OR INFECTIONS:

      This section is intended to draw the physician's attention to the recording of complications and infections in order to fully describe the patient and his/her hospital experience. Again, this is important in assigning the case to the proper CMG.

....Cont'd

d) SECONDARY DIAGNOSIS:

A diagnosis describing conditions for which a patient may (or may not) have received treatment but DID NOT significantly contribute to the patient's length of stay in the hospital.

e) OPERATIVE PROCEDURES:

The Principal Procedure is the most significant during the patient's hospital stay. It should be the first named in the list. Following the principal procedure should be as complete a listing as possible of all procedures carried out in hospital.

4. At time of the patient's discharge the physician shall complete the sections as listed above ("a" through "e" as appropriate).

5. The completed form shall remain a part of the patient's permanent health record, directly behind the discharge summary.

HR 103

92.09.09

STURGEON GENERAL HOSPITAL

INPATIENT CLINICAL FUNDING/CODING DATA SHEET

MOST RESPONSIBLE DIAGNOSIS: (Condition responsible for longest length of stay)

1. _____

PRIMARY DIAGNOSIS AND/OR ASSOCIATED CONDITIONS: (Other important conditions which have influenced the length of stay)

$ 1. _____

$ 2. _____

$ 3. _____

COMPLICATIONS AND/OR INFECTIONS:

$ 1. _____

$ 2. _____

☐ Admitted with Infection ☐ Condition acquired after admission

SECONDARY DIAGNOSIS: (Conditions which did not influence length of stay but patient may or may not have received treatment for)

1. _____

2. _____

3. _____

OPERATIVE PROCEDURE: (List principle procedure first and follow with all other procedures performed)

1. _____

2. _____

3. _____

_____
Physician's Signature

COMPLETION OF THIS FORM WILL ENSURE FUNDING

HR 103 92.09.09 INPATIENT CLINICAL FUNDING/CODING DATA SHEET

Appendix 9

Hospital A

COMPARISON OF DATA ELEMENTS ABSTRACTED

Data Element	Inpatient	Emergency	Day Procedure
Patient ID #/Seq #	√	-	√
Type of Patient	-	-	-
Name	-	-	-
Birth Date	√	-	√
Greater than 99	√	-	√
Sex	√	-	√
Admission Date	√	√	√
Admission Hour	√	-	√
Second Registration	-	-	-
Length of Stay	√	(M/M time)	-
Responsibility for Payment	√	-	√
Postal Code	√	-	-
Residence Name	√	-	-
Residence Type	√	-	-
Patient Service			
Main	√	-	√
Sub-service	-	-	-
Reserve	-	-	-
Admission Category	√	-	√
Entry Code	√	-	√
Readmission Code	-	-	-
Admission Via Ambulance	√	-	-
AHCIC	√	-	√
Institution From	√	-	-
Discharge Date	√	-	√
Discharge Hour	√	-	√
Exit Code	√	√	√
Institution To	√	√	-
Date Ready for Discharge	-	-	-
(Death in) Special Care Units	√	-	-
Death Codes	√	-	√

Social Services	-	-	-
Weight (⊆ 28 days of age)	√	-	-
Ventilator Days	√	-	-
Doctor Information (#, service)	√	-	M only
Therapies	-	-	-
Discharge Plan	-	-	-
Pre-admission Work Up	-	-	-
Doctor Search	-	-	-
Diagnosis Code (x 16)	√	√	√
Diagnosis Type (x 15)	√	(NWL)	M
Procedural Episode	-	-	-
Procedural Date	√	-	√
Procedural Physician	√	-	√
Procedural Service	√	-	√
Procedural Code (s)	√	-	√
Procedural Suffix	-	-	√
Tissue	-	-	-
Anesthetist	√	-	-
Procedure Time	-	-	√
Technique	-	-	-
Service Transfer Information (ALC)	√	-	-
Abstract Overflow	-	-	-
Coder	√	√	√
Abstractor	-	-	-
Options	-	-	-
Patient Chart Deficiency (PCD)	-	-	-
Major Diagnostic Category (MDC)	-	-	-
Major Clinical Category (MCC)	-	-	-
Case Mix Group (CMG)	-	-	-
Code Search	-	-	-
Projects	-	-	-

Note: Includes mandatory data elements only; excludes data elements that are collected for internal reporting purposes.

(Prepared based on copy table compiled for internal study)